

CITYWIDE DEFICIENCY PLAN EXECUTIVE SUMMARY

The purpose of the Citywide Deficiency Plan is to set forth a plan to address existing and anticipated deficiencies in the level of service (LOS) of intersections in the City of Sunnyvale that are identified as part of the Santa Clara County Congestion Management Program (CMP). The objective of the Sunnyvale Citywide Deficiency Plan is to identify and implement a set of measures that will improve transportation conditions and air quality in the City of Sunnyvale. Further, it is the objective of the Citywide Deficiency Plan to set forth a comprehensive citywide solution to LOS deficiencies at CMP facilities in the City of Sunnyvale to avoid the need for adherence to strict standards at CMP facilities for which no localized mitigation is feasible.

The Congestion Management Program (CMP) legislation requires Member Agencies to prepare deficiency plans for CMP facilities located within their jurisdictions that exceed, or are expected to exceed in the future, the CMP traffic level-of-service (LOS) standard. Santa Clara County's CMP LOS standard is LOS E. The statute requires that deficiency plans improve system-wide traffic level of service and contribute to a significant improvement in air quality. If a CMP System facility exceeds the LOS standard and does not have a CMA-approved deficiency plan, then the local jurisdiction in which the facility is located is at risk of losing new gas tax revenues provided from Proposition 111.

A deficiency plan must identify the cause(s) of a deficiency, demonstrate that all feasible improvements have been made to the deficient facility, and describe actions that will be implemented to compensate for the deficiency.

Deficiency plan actions are transportation improvements, programs, and actions that are implemented to compensate for violations or potential violations of the CMP traffic LOS standard. Under the statute, the Bay Area Air Quality Management District (Air District) is required to prepare a list of deficiency plan actions, improvements, and programs for use in local deficiency plans. According to the statute, actions included in local deficiency plans must be from this list or be approved by the Air District. Air District staff prepared a Deficiency Plan Action List, and the CMA has used the Air District's Deficiency Plan Action List to develop its own action list tailored to Santa Clara County.

The CMA's action list is divided into two categories—immediate implementation actions and deferred implementation actions. Immediate implementation actions are those that Member Agencies can implement immediately. Deferred implementation actions are actions that cannot be implemented immediately because they require new institutional arrangements and/or specific implementation techniques that must be developed. The Santa Clara County CMA requires Member Agencies to implement all feasible and applicable actions on the most current version of the CMA's Deficiency Plan Immediate Implementation Action List. Additionally, to further improve transportation conditions, the CMA recommends that Member Agencies include as many actions from the Deferred Implementation Action List as possible.

Deficiency Plan Deficient Facilities

The Sunnyvale Citywide Deficiency Plan addresses deficiencies throughout the City of Sunnyvale, and the plan area boundary is coterminous with the incorporated area that is the City of Sunnyvale. The Deficiency Plan Area contains 14 intersections that are part of the CMP

system. According to a report prepared for the City of Sunnyvale entitled: "Sunnyvale Traffic Mitigation Program Study," (Hexagon Transportation Consultants Inc, December 19, 2002), six of the 14 CMP intersections are projected to be deficient under the most intense development scenario of the Sunnyvale General Plan. Table 1 summarizes existing and future LOS.

Table 1
Intersection LOS—Existing and Future Conditions

Intersection	Existing LOS		LOS Under Future Conditions w/out Improvements	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Mary Avenue & El Camino Real	D	D	D	F
Wolfe Road & El Camino Real	D	D	E	F
Sunnyvale-Saratoga Road & Remington Drive	D	D	F	E
Lawrence Expwy. & Arques Avenue	C	D	D	F
Lawrence Expwy. & Reed Avenue/Monroe Street	E	E	F	F
Lawrence Expwy. & Homestead Road	D	D	F	F

Source: Sunnyvale Traffic Mitigation Program, Hexagon Transportation Consultants, October 2004

Summary of Improvements, Other Actions, and Costs

The City of Sunnyvale has identified approximately \$171.9 million in needed transportation improvements. Of this total amount, \$100.0 million will be funded through a combination of state and regional transportation funds and countywide taxes. The remaining \$71.9 million will be funded by the City of Sunnyvale's two-tiered traffic impact fee, which was adopted by the City of Sunnyvale in November 2003. Tier 1 applies to areas outside of the Moffett Industrial Park (\$28.4 million), and Tier 2 applies to the industrial area north of Route 237 (Moffett Park Specific Plan area) and includes funding of a local share of Mathilda/237 area improvements (\$38.4 million).

Table 2 itemizes the transportation improvement projects identified by the City of Sunnyvale and associated costs. At the end of Table 2 these costs are divided into three categories—Tier 1 improvements, Tier 2 improvements, and other improvements funded by non-city sources.

Table 2
Transportation Improvement Cost Summary

Location (Type)	Cost
CMP Intersection Improvements	
* Mary Avenue & El Camino Real	\$500,000
* Wolfe Road & El Camino Real	N/A
* Sunnysvale-Saratoga Road & Remington Drive	\$1,000,000
* Lawrence Expressway & Arques Avenue	\$35,000,000
*** Lawrence Expressway & Monroe Street (Non-City funds)	\$40,000,000
Subtotal CMP Intersection Improvements	\$76,500,000
Offsetting Improvements to Non-CMP Intersections	
** Mary Avenue Extension (City's share is 50%)	\$50,000,000
* Mary Avenue & Fremont Avenue	\$800,000
* Mary Avenue & Evelyn Avenue	\$500,000
* Fair Oaks Avenue & Arques Avenue	\$500,000
* Wolfe Road & Kifer Road	\$1,000,000
* Wolfe Road & Reed Avenue	\$500,000
* Lawrence Expressway & Lochinvar Avenue	\$34,000
*** Lawrence Expressway & Kifer Road (Non-City funds)	\$35,000,000
Subtotal Non-CMP Intersection Improvements	\$88,334,000
Offsetting Action from CMA Immediate Implementation Action List	
* Arques Avenue Bike Lanes	Completed
* Caribbean Drive Bike Lanes	Completed
* Mathilda Avenue Class III Bike Route	Completed
* Mathilda Avenue/Caltrain Bridge Widening for Bicycles	Included in cost of bridge
** Moffett Park Drive, Old Mountain View-Alviso Road Bike Lanes	Completed
** Mary Avenue Road Diet and Bike Lanes	Completed
** Maude Avenue Bike Lanes and Bike Route	Completed
** Wolfe Road Sharrows	Completed
* Mary Avenue Bike Lanes	\$240,000
* Wolfe Road Bike Lanes	\$40,000
* Mathilda Bike Lanes	\$470,000
* Java Drive Bike Lanes	\$300,000
* Citywide Sidewalk Improvements	\$6,000,000
Subtotal Immediate Implementation Action Items	\$7,050,000

Location (Type)	Cost
Total	\$171,884,000
Fees Already Collected	\$5,090,705
Tier 1 Improvement Costs	\$28,419,441
Tier 2 Improvement Costs	\$38,373,854
Improvement Costs Funded by Non-City Sources	\$100,000,000

Note: *The responsibility for these projects rests with the City of Sunnyvale.

**The responsibility for this project rest jointly with the City of Sunnyvale and the County of Santa Clara

***The responsibility for these projects rests with the County of Santa Clara

Source: Hexagon Transportation Consultants; November 11, 2003 Staff Report to Sunnyvale City Council

Offsetting Actions from Immediate Implementation Action List

The Santa Clara County Transportation Authority (VTA) has adopted a list of action items for immediate implementation, and this section describes the items from this list that the City of Sunnyvale is planning to undertake to offset the effects of deficiencies in the CMP transportation system anticipated by this plan. Table 3 summarizes the CMA Immediate Implementation Action List.

Table 3
Santa Clara County CMA Immediate Implementation Action List

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
Bicycle and Pedestrian Actions	
A-1 Transit and Bicycle Integration (Deferred Action)	<ul style="list-style-type: none"> ❖ The Downtown Specific Plan Policy C.6: "Provide adequate access to parking in the downtown," and Policy C.7: "Follow the VTA standards for bicycle parking to the extent possible." ❖ The City installed 100 bicycle lockers as part of the Sunnyvale Multimodal Station construction. The estimated cost of these lockers was \$150,000. ❖ The City has a Bike Parking Incentive Program that supplies free bike wave racks for installation by businesses and retail establishments. The cost of this program is \$10,000. These facilities are often in proximity to bus stops.
A-2 Bike Lockers, Racks, and Facilities at Transit Centers	<ul style="list-style-type: none"> ❖ The City does not have jurisdiction over most transit centers in the City, but it supports and advocates to the VTA and Caltrain for bike parking facilities. ❖ General Plan policy calls for the City to "Ensure safe and efficient pedestrian and bicycle connections to neighborhood transit stops" (LUTE C3.5.7) and to "develop clear, safe and convenient linkages between all modes of travel: including, access to transit stations and stops, and connections between work, home and commercial sites." (LUTE C3.6.1). ❖ The VTA provides bike racks and access on all buses and LRV's, and

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
A-3 Improve Roadside Bicycle Facilities	Caltrain provides bike lockers at the Lawrence Station.
	❖ Arques Avenue bike lanes. Provided bike lanes through the Lawrence-Arques CMP intersection. Completed
	❖ Caribbean Drive bike lanes. Provided bike lanes the length of Caribbean Drive, a CMP facility. Completed
	❖ Mathilda Avenue Class III bike route. Completed 2004; provided shoulder and signing on Mathilda Avenue from Route 237 to Java Drive, a CMP facility. Completed
	❖ Mathilda Avenue/Caltrain Bridge widening for bicycles. In design.
	❖ Moffett Park Drive, Old Mountain View-Alviso Road bike lanes. (Cross County Corridor 8). Completed
	❖ Mary Avenue road diet, Homestead Road to Fremont Avenue, and bike lanes. Maude Avenue to Almanor Avenue (Cross-County Corridor 3). Completed
	❖ Maude Avenue Bike Lanes and Bike Route. Mathilda to Route 237 (Cross County Corridor 1). Completed
	❖ Wolfe Road Sharrows. El Camino Real to Old San Francisco Road (Cross County Corridor 14). Completed
	❖ Mary Avenue, Fremont to Maude. Install bike lanes. This would involve some roadway widening, re-striping, and removal of on-street parking. The estimated cost is \$240,000.
A-4 Improve Pedestrian Facilities	❖ Wolfe Road, Maria to Homestead. Install bike lanes. This involves providing signage and legends. The estimated cost is \$40,000.
	❖ Mathilda Avenue, Maude to El Camino. Install bike lanes. This would involve roadway widening. The estimated cost is \$470,000.
	❖ Java Drive, Crossman to Mathilda. Install bike lanes. This would involve roadway widening. The estimated cost is \$300,000.
	❖ In order to preserve an acceptable pedestrian environment in conjunction with roadway widening and to support walking as an alternative for short trips, the city's sidewalk system will be upgraded and completed. The city has prepared a study of sidewalk needs and has estimated the total cost of improvements to be \$6 million, which will be funded by the traffic impact fee.
Public Transit	
B-3 Shuttle Service (Existing Employment Centers)	❖ The City is a member of the Moffett Park Business and Transportation Association, which provides information to 12,000 + employees in the Moffett Industrial Park on transportation alternatives, transit schedules, and other transportation issues and plans.
	❖ The City requires that bus stop improvements be made as part of improvements to adjacent development or redevelopment at major bus stop locations. Bus duckouts, pads, and electrical service have been required at five locations in the past five-plus years. The City has also constructed a duckout and shelter with electrical service at City
B-8 Bus Stop Improvements	

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
	<p>Hall.</p> <ul style="list-style-type: none"> ❖ The City also participates in the Valley Transportation Authority Bus Shelter Advertising Program, which provides bus shelters at various locations around the City in exchange for advertising rights. ❖ Sunnyvale GP Action 3.7B.3c. Requires site design to encourage transit circulation and stops/waiting areas for transit and carpools.
Carpooling, Bus Pooling, Van Pooling, Taxi Pooling	
C-1 Enhanced Trip Reduction Program	<ul style="list-style-type: none"> ❖ The City is a member of the Moffett Park Business and Transportation Association, which provides information to 12,000 + employees in the Moffett Industrial Park on transportation alternatives, transit schedules, and other transportation issues and plans. ❖ The City adopted the Moffett Park Specific Plan, which includes a requirement for a 20% trip reduction by all occupants of newly constructed facilities in Moffett Park.
High Occupancy Vehicle (HOV) Facilities	
D-1 Arterial HOV/Transit Lanes	<ul style="list-style-type: none"> ❖ It is not the policy of the City of Sunnyvale to pursue HOV-type improvements on city streets. With regard to Lawrence Expressway, the City has supported HOV-type improvements on selected portions of the facility.
D-2 Implement MTC's 2005 HOV Plan	<ul style="list-style-type: none"> ❖ See above
D-3 Construct HOV Support Facilities	<ul style="list-style-type: none"> ❖ See above
D-4 Construct HOV Connections and Ramps	<ul style="list-style-type: none"> ❖ See above
D-5 Construct HOV Bypass Facilities	<ul style="list-style-type: none"> ❖ See above
Transportation Demand Management (TDM) Programs	
E-2 Public Information Programs	<ul style="list-style-type: none"> ❖ The City is a member of the Moffett Park Business and Transportation Association, which provides information to 12,000 + employees in the Moffett Industrial Park on transportation alternatives, transit schedules, and other transportation issues and plans. ❖ The City adopted the Moffett Park Specific Plan, which includes a requirement for a 20% trip reduction by all occupants of newly constructed facilities in Moffett Park.

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
Traffic Flow Improvements	
F-2 Peak-Hour Parking and Delivery Restrictions	❖ It is not the policy of the City of Sunnyvale to pursue these types of capacity enhancements on city streets, although such improvements could be proposed by large development as part of a TDM program.
F-3 Traffic Signal Timing and Synchronization Program	❖ Sunnyvale GP, Action 3.7A.2b. The City should give high priority to traffic improvements that improve vehicle operating conditions (average speed, delay) such as signal timing improvements, signal synchronization, turn lanes, etc.
	❖ The City budgets about \$64,000 a year for signal timing and optimization over the life of the current 10-year budget.
F-4 Traffic Flow Improvements in Urban Areas	❖ Various improvements at CMP and non-CMP intersections as described in Chapter 3
Site Design Guidelines for New Development	
G-1 HOV Parking Preference Program	❖ The Sunnyvale Municipal Code provides that a minimum of 10 percent of all parking places in industrial or service zoning districts shall be reserved for carpool vehicles, and those spaces shall be nearest to the principal building on the premises.
	❖ Also, if a car pool or similar program is required as an environmental mitigation measure of any development, use or design permit, carpool spaces shall be provided convenient to building entrances. (SMC 19.46.030a, b)
G-2 Bike Facilities at Development Projects	❖ Bicycle parking can be substituted for up to 5 percent of the required vehicle parking for industrial development, in a ratio of eight bike spaces for one vehicle space, or one shower/dressing room for two spaces, or a combination thereof. (SMC 19.46-030c)
	❖ City of Sunnyvale requires bike facilities as part of new large developments
G-3 Building Orientation/ Placement at Employment Sites	❖ The Sunnyvale City Council has endorsed the Valley Transportation Authority Community Design and Transportation Best Practices, which provide comprehensive guidance on building orientation and placement.
	❖ The Moffett Park Specific Plan contains site planning and architectural guidelines that promotes the orientation of buildings toward the adjacent light rail corridor and encourages the placement of high-density development for easy access to light-rail transit.
G-4 Pedestrian Circulation System	❖ City of Sunnyvale requires sidewalk development as part of new industrial development (SMC Section 19.38.080 Sidewalks--Industrial districts)
	❖ Citywide Design Guidelines, Site Design (A8). Link on-site walkways to the public sidewalk system outside the project for ease of pedestrian access.

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
	<ul style="list-style-type: none"> ❖ Citywide Design Guidelines, Site Design (A9). Provide pedestrian links between residential developments and nearby employment and shopping centers, schools and parks to encourage pedestrian activities. ❖ Citywide Design Guidelines, Site Organization (B5). Do not dominate street frontage of projects by surface parking to encourage pedestrian orientation and a continuous streetscape. Limit paved areas on street frontages of non-residential developments to one double row of parking and locate the rest of the parking elsewhere on the site. ❖ Citywide Design Guidelines, Site Organization (B10). Provide convenient and safe pedestrian and automobile access to the site from adjacent streets. ❖ Citywide Design Guidelines, Scale and Character (B8). In non-residential buildings maintain visually interesting activities at the street level by placing active facades with windows and openings on the street side to promote pedestrian activities. ❖ Citywide Design Guidelines, Architecture and Design (C13). Define building entries by use of human scale architectural elements such as arches, posts, awnings, etc. Orient main entries toward public streets. ❖ Citywide Design Guidelines, Circulation and Parking (A7). Separate pedestrian and automobile traffic paths, and minimize conflict areas for safety. ❖ Citywide Design Guidelines, Circulation and Parking (A8). Provide walkways to connect parking lots to building entrances. Define walkways by landscaping, lighting and paving. ❖ Transportation Strategic Program, Comprehensive Sidewalk Completion. Completion of sidewalk network in industrial areas funded by traffic improvement fees. ❖ Downtown Development Program, Mathilda Boulevard Style Streetscape Improvements. Sidewalk, median landscape, streetscape improvements, parking lane, Iowa Avenue to Caltrain.
G-5 Bike Storage at Residential Development Projects	<ul style="list-style-type: none"> ❖ The City of Sunnyvale requires multifamily residential developments of five or more units to have secured bicycle parking at a ratio of one secured bicycle parking space for every four units, but no fewer than four spaces/bike racks for guest parking (SMC Sec. 19.46.050, Note No. 1). ❖ The City of Sunnyvale also requires lockable storage for multifamily housing projects, which may be used for bike storage.
G-6 Shuttle Service (New Development)	<ul style="list-style-type: none"> ❖ The Moffett Park Specific Plan TDM program lists shuttle service as an option for new development. ❖ This program is an option for traffic mitigation in compliance w/ CEQA ❖ The City requires as a condition of approval that bus stop improvements be made as part of improvements to adjacent development or redevelopment at major bus stop locations. Bus duckouts, pads, and electrical service have been required at five locations in the past five-plus years. This practice will continue. The City has also constructed a duckout and shelter with electrical service at City Hall.
G-7 Transit Stop Improvements	<ul style="list-style-type: none"> ❖ The City also participates in the Valley Transportation Authority Bus

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
G-8 Multi-Tenant Complex TDM Program	<p>Shelter Advertising Program, which provides bus shelters at various locations around the City in exchange for advertising rights.</p> <ul style="list-style-type: none"> ❖ Sunnyvale GP Action 3.7B.3c. Requires site design to encourage transit circulation and stops/waiting areas for transit and carpools. ❖ Moffett Park Specific Plan; this program is also an option for traffic mitigation in compliance w/ CEQA;
Land-Use Program	
H-1 Mixed-Use Development	<ul style="list-style-type: none"> ❖ Downtown Specific Plan Goal B: "Establish the Downtown as the cultural, retail, financial and entertainment center of the community, complemented by employment, housing and transit opportunities." Policy B1: "Encourage mixed uses throughout the downtown when consistent with the district character." ❖ Lawrence/101 Specific Plan facilitated apartment development mixed with a small amount of retail use. ❖ Fair Oaks/Tasman GPA allows mixed-use development. ❖ El Camino Precise Plan Policy N1.11: "Recognize El Camino Real as a primary retail corridor with a mix of uses." Action N1.11.1: "Use the Precise Plan for El Camino Real to protect legitimate business interests, while providing sufficient buffer and protection for adjacent and nearby residential uses." ❖ Redevelopment of the Sunnyvale Town Center (mall area) by Forum includes 292 dwellings units mixed with one million square feet of retail and 282,000 square feet of office use. ❖ Sunnyvale GP Action 3.7B.1b: "Promote mixed land use development that provides commercial services such as day care, restaurants, banks and stores near employment centers, reducing auto trip generation by promoting pedestrian travel. Promote neighborhood commercial and park uses within residential developments to reduce short auto trip generation by making pedestrian and bicycle trips feasible (for example, require sidewalks, bike trails and bicycle parking areas)."
H-2 Childcare Facilities near Transit and Worksites	<ul style="list-style-type: none"> ❖ See above
H-3 Affordable Housing near Worksites	<ul style="list-style-type: none"> ❖ The City of Sunnyvale is in the process of converting selected industrial area to residential use, which is resulting in an infusion of housing into areas adjacent to employment centers. For example, recent residential development in the Tasman/Fair Oaks area is only one transit stop away from the Moffett Park Specific Plan Area.
H-4 High Density Development near Transit	<ul style="list-style-type: none"> ❖ Downtown Specific Plan Goal C: "Promote a balanced street system that serves all users well regardless of their mode of travel." Policy C.3: "Promote the use of public transit by intensifying land use and activities near transit cores."

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
	<ul style="list-style-type: none"> ❖ Redevelopment of the Sunnyvale Town Center (mall area) by Forum includes 292 dwellings units in proximity to light-rail transit ❖ The Futures Study has resulted in up-zoning and re-zoning in many parts of Sunnyvale. ❖ Sunnyvale GP Action 3.7B.1a. Promote extension of transit systems, and locate higher density development and redevelopment along transit corridors; Sunnyvale GP Action 3.7B.3a: "Increase densities near transit stations." ❖ The Moffett Park Specific Plan created a high density transit oriented development zoning designation along the Tasman light rail corridor. ❖ The land near the Fair Oaks light rail corridor has been rezoned to transition from industrial to high density residential.
H-5 Establish Telecommuting Centers	❖ This program is an option for traffic mitigation in compliance w/ CEQA
H-6 Auto-Free/Transit Only Zone	❖ It is not the policy of the City of Sunnyvale to pursue these types of transit enhancements on city streets, although such improvements could be proposed by large development as part of a TDM program.

Source: Requirements for Deficiency Plans, Santa Clara County CMA, November 1992; City of Sunnyvale

Each of the alternative action items identified above is contained in the VTA's Immediate Implementation Action List. As such, each of these actions has been found to contribute to an improvement of air quality in the region.

The City of Sunnyvale will monitor and evaluate the implementation of the Action Plan set forth in this Deficiency Plan. Table 4 sets forth a schedule for implementation of the Action Plan. Evaluation of CMP levels of service will be accomplished through periodic updates to the City's traffic model and impact fee system.

Table 4
Action Plan Implementation Schedule

Location (Type)	Schedule for Improvement
Implementation of Sunnyvale Impact Fees	Completed
Periodic Update of Traffic Model	Every 5 years
Periodic Update of Sunnyvale Impact Fees	Every 5 years
CMP Intersection Improvements	
Mary Avenue & El Camino Real	2010
Wolfe Road & El Camino Real	N/A
Sunnyvale-Saratoga Road & Remington Drive	2010
Lawrence Expressway & Arques Avenue	2020

Location (Type)	Schedule for Improvement
Lawrence Expressway & Monroe Street (Non-City funds)	2020
Offsetting Improvements to Non-CMP Intersections	
Mary Avenue & Fremont Avenue	2010
Mary Avenue & Evelyn Avenue	2010
Fair Oaks Avenue & Arques Avenue	2010
Wolfe Road & Kifer Road	2010
Wolfe Road & Reed Avenue	2010
Lawrence Expressway & Lochinvar Avenue	2010
Mary Avenue Extension (City's share is 50%)	2020
Lawrence Expressway & Kifer Road (Non-City funds)	2020
Offsetting Action from CMA Immediate Implementation Action List	
Arques Avenue Bike Lanes	Completed
Caribbean Drive Bike Lanes	Completed
Mathilda Avenue Class III Bike Route	Completed
Mathilda Avenue/Caltrain Bridge Widening for Bicycles	2005
Moffett Park Drive, Old Mountain View-Alviso Road Bike Lanes	Completed
Mary Avenue Road Diet and Bike Lanes	Completed
Maude Avenue Bike Lanes and Bike Route	Completed
Wolfe Road Sharrows	Completed
Mary Avenue Bike Lanes	2010
Wolfe Road Bike Lanes	2010
Mathilda Bike Lanes	2010
Java Drive Bike Lanes	2010
Citywide Sidewalk Improvements	2010
Miscellaneous Action Items	
Moffett Park Business and Transportation Association membership	Completed
Operating budgets for signal coordination	Completed
Municipal Code requirements for HOV parking, sidewalks, bike parking at residential development	Completed
Downtown Specific Plan, El Camino Precise Plan, Futures Study, Fair Oaks/Tasman GPA land use actions to promote mixed use, high densities near transit	Completed
Moffett Park Specific Plan, which promotes high densities near transit	Completed

Source: City of Sunnyvale

City of Sunnyvale Citywide Deficiency Plan

**Prepared for:
City of Sunnyvale**

**Prepared by:
Hexagon Transportation Consultants, Inc.**

November 2004

TABLE OF CONTENTS

CHAPTER 1	INTRODUCTION	1
	<i>Background.....</i>	2
	<i>Deficiency Plan Actions</i>	2
	<i>Deficiency Plan Area Boundary and Deficient Facilities</i>	2
	<i>Description of Base Year and Future Conditions.....</i>	4
	<i>Responsible Government Agencies.....</i>	4
CHAPTER 2	DEFICIENCY ANALYSIS	5
	<i>Exceedance of LOS Standards.....</i>	5
	<i>Impact of Development on Transportation Conditions</i>	6
CHAPTER 3	IMPROVEMENT LIST FOR DEFICIENT CMP INTERSECTIONS	8
	<i>Mary Avenue & El Camino Real.....</i>	8
	<i>Wolfe Road & El Camino Real.....</i>	8
	<i>Sunnyvale-Saratoga Road & Remington Drive.....</i>	8
	<i>Lawrence Expressway & Arques Avenue</i>	9
	<i>Lawrence Expressway & Reed Avenue/Monroe Street</i>	9
	<i>Lawrence Expressway & Homestead Road.....</i>	9
CHAPTER 4	DEFICIENCY PLAN ACTION LIST.....	11
	<i>Offsetting Roadway Improvements.....</i>	11
	<i>Mary Avenue Extension</i>	11
	<i>Mary Avenue & Fremont Avenue</i>	13
	<i>Mary Avenue & Evelyn Avenue</i>	13
	<i>Fair Oaks Avenue & Arques Avenue</i>	13
	<i>Wolfe Road & Kifer Road.....</i>	13
	<i>Wolfe Road & Reed Avenue.....</i>	13
	<i>Lawrence Expressway & Lochinvar Avenue</i>	13
	<i>Lawrence Expressway & Kifer Road</i>	13
	<i>Offsetting Actions from Immediate Implementation Action List.....</i>	14
CHAPTER 5	ACTION PLAN	22
	<i>Summary of Improvement Costs.....</i>	22
	<i>Summary of Sunnyvale Traffic Impact Fees.....</i>	24
CHAPTER 6	DEFICIENCY PLAN MONITORING.....	25
CHAPTER 7	ENVIRONMENTAL DOCUMENTATION.....	27
APPENDIX A,	CMA Immediate Implementation Action list.....	A-1

CHAPTER 1 INTRODUCTION

The purpose of this document is to set forth a plan to address existing and anticipated deficiencies in the level of service (LOS) of intersections in the City of Sunnyvale that are identified as part of the Santa Clara County Congestion Management Program (CMP). The objective of the Sunnyvale Citywide Deficiency Plan is to identify and implement a set of measures that will improve transportation conditions and air quality in the City of Sunnyvale. Further, it is the objective of the Citywide Deficiency Plan to set forth a comprehensive citywide solution to LOS deficiencies at CMP facilities in the City of Sunnyvale to avoid the need for adherence to strict standards at CMP facilities for which no localized mitigation is feasible.

This plan report is organized into seven chapters (including this introduction) and one appendix, as follows:

- ❖ Chapter 2 contains a deficiency analysis of roadways and intersections that will exceed the CMP LOS standard, a quantitative analysis of how much intersections exceed the LOS standard, and a projection of how development in Sunnyvale and neighboring cities is expected to impact transportation conditions within the plan area,
- ❖ Chapter 3 contains a list and planning-level cost estimates of the physical improvements necessary to maintain the CMP LOS standard on subject facilities, an explanation of why particular facilities cannot be improved to operate with the CMP LOS standard, and an analysis of system-wide benefits to CMP facilities,
- ❖ Chapter 4 identifies physical improvements to non-CMP facilities designed to provide additional offset and sets forth an action list describing how feasible and appropriate actions on the Congestion Management Agency's (CMA) Immediate Implementation Action List will be implemented as part of the deficiency plan,
- ❖ Chapter 5 contains an action plan that describes how deficiency plan actions will be implemented, who bears responsibility for implementation, the source of funding for individual actions, and the timing of implementation,
- ❖ Chapter 6 contains a monitoring program that describes how the City will evaluate the implementation of deficiency plan actions,
- ❖ Chapter 7 describes the reconciliation of CEQA with actions included in the deficiency plan, and
- ❖ Finally, Appendix A contains Santa Clara County Transportation Authority's Immediate Implementation Action list.

Background

The Congestion Management Program (CMP) legislation requires Member Agencies to prepare deficiency plans for CMP facilities located within their jurisdictions that exceed, or are expected to exceed in the future, the CMP traffic level-of-service (LOS) standard. Santa Clara County's CMP LOS standard is LOS E. The statute requires that deficiency plans improve system-wide traffic level of service and contribute to a significant improvement in air quality. If a CMP System facility exceeds the LOS standard and does not have a CMA-approved deficiency plan, then the local jurisdiction in which the facility is located is at risk of losing new gas tax revenues provided from Proposition 111.

Deficiency plans are a logical addition to CMP LOS standards, because in some situations, meeting LOS standards may be impossible or undesirable. For these situations, deficiency plans allow local jurisdictions to adopt innovative and comprehensive transportation strategies for improving system-wide LOS rather than adhering to strict traffic LOS standards that may contradict other community goals. In short, deficiency plans allow Member Agencies to trade off a LOS violation on one CMP facility for improvements to other facilities or services (e.g. transit, bicycles, walking, or transportation demand management). For example, it may be impossible to improve a CMP facility to meet the LOS standard because of insufficient right-of-way. With deficiency plans, offsetting improvements, such as higher-density development downtown or improved transit service, can be pursued.

A deficiency plan must identify the cause(s) of a deficiency, demonstrate that all feasible improvements have been made to the deficient facility, and describe actions that will be implemented to compensate for the deficiency.

Deficiency Plan Actions

Deficiency plan actions are transportation improvements, programs, and actions that are implemented to compensate for violations or potential violations of the CMP traffic LOS standard. Under the statute, the Bay Area Air Quality Management District (Air District) is required to prepare a list of deficiency plan actions, improvements, and programs for use in local deficiency plans. According to the statute, actions included in local deficiency plans must be from this list or be approved by the Air District. Air District staff prepared a Deficiency Plan Action List, and the CMA has used the Air District's Deficiency Plan Action List to develop its own action list tailored to Santa Clara County.

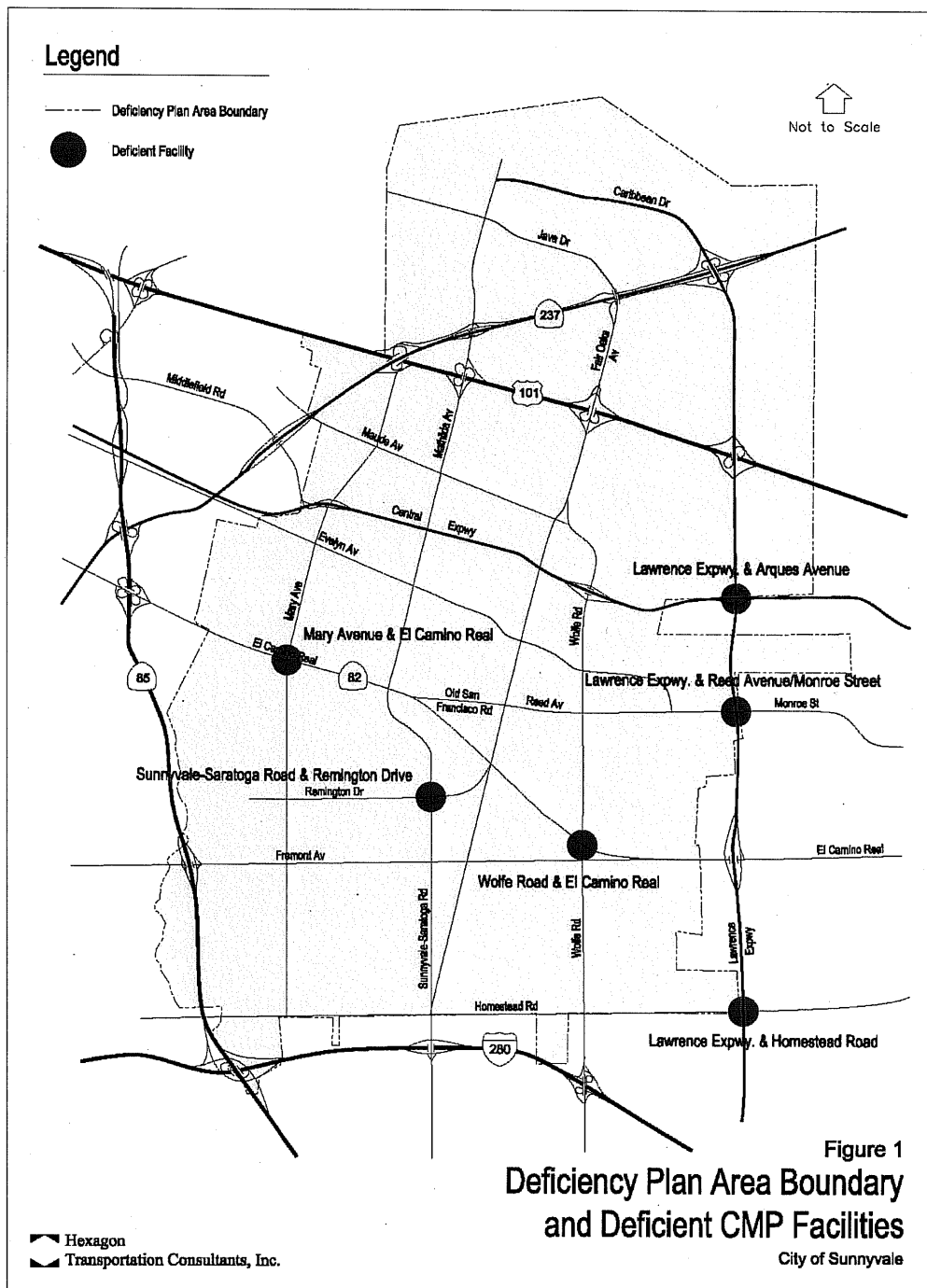
The CMA's action list is divided into two categories—immediate implementation actions and deferred implementation actions. Immediate implementation actions are those that Member Agencies can implement immediately. Deferred implementation actions are actions that cannot be implemented immediately because they require new institutional arrangements and/or specific implementation techniques that must be developed. The Santa Clara County CMA requires Member Agencies to implement all feasible and applicable actions on the most current version of the CMA's Deficiency Plan Immediate Implementation Action List. Additionally, to further improve transportation conditions, the CMA recommends that Member Agencies include as many actions from the Deferred Implementation Action List as possible.

Deficiency Plan Area Boundary and Deficient Facilities

The Sunnyvale Citywide Deficiency Plan addresses deficiencies throughout the City of Sunnyvale, and the plan area boundary is coterminous with the incorporated area that is the City of Sunnyvale. The Deficiency Plan Area contains 14 intersections that are part of the CMP system. According to a report prepared for the City of Sunnyvale entitled: "Sunnyvale Traffic Mitigation Program Study," (Hexagon

Transportation Consultants Inc, December 19, 2002), six of the 14 CMP intersections are projected to be deficient under the most intense development scenario of the Sunnyvale General Plan. Figure 1 shows the location of the deficiency plan area boundary and the six CMP intersections that have existing or anticipated deficiencies.

**Figure 1. Deficiency Plan Area Boundary and Deficient CMP Facilities
Sunnyvale Deficiency Plan**



Description of Base Year and Future Conditions

The six intersections that are the subject of this deficiency plan currently operate at LOS D and E, according to the 2004 CMP monitoring program results compiled by Hexagon Transportation Consultants (Hexagon, October 2004). The level of service at these facilities will decline to LOS F under future conditions without improvements. Table 1 summarizes existing and future LOS.

Table 1
Intersection LOS—Existing and Future Conditions

Intersection	Existing LOS		LOS Under Future Conditions w/out Improvements	
	AM Peak Hour	PM Peak Hour	AM Peak Hour	PM Peak Hour
Mary Avenue & El Camino Real	D	D	D	F
Wolfe Road & El Camino Real	D	D	E	F
Sunnyvale-Saratoga Road & Remington Drive	D	D	F	E
Lawrence Expwy. & Arques Avenue	C	D	D	F
Lawrence Expwy. & Reed Avenue/Monroe Street	E	E	F	F
Lawrence Expwy. & Homestead Road	D	D	F	F

Source: Sunnyvale Traffic Mitigation Program, Hexagon Transportation Consultants, October 2004

Responsible Government Agencies

With the exception of Lawrence Expressway, all deficient facilities identified in this deficiency plan are the responsibility of the City of Sunnyvale. The County of Santa Clara owns Lawrence Expressway, and the intersection of Homestead Road and Lawrence Expressway is physically located in both the City of Santa Clara and the City of Sunnyvale (with the majority being located in the City of Santa Clara). The Santa Clara Valley Transportation Authority (VTA), as the administrator of the county Congestion Management Program, has programmed funds for several deficiency plan actions that are also part of the Valley Transportation Plan 2030.

CHAPTER 2 DEFICIENCY ANALYSIS

The purpose of this chapter is to examine why roadways and intersections in the plan area will exceed the CMP LOS standard, analyse the degree to which roadways and intersections will exceed the CMP LOS standard, and project how development in Sunnyvale and neighboring cities is expected to impact transportation conditions within the plan area.

Exceedance of LOS Standards

The six CMP intersections that are the subject of this Deficiency Plan are currently operating within the CMP LOS standard but are expected to degrade to LOS F at sometime in the future. The City of Sunnyvale has identified improvements for four of these intersections that would improve the level of service to meet or exceed the CMP LOS standard. The improvements planned for these facilities, however, are years from programming and completion, and as a result the operation of these facilities may exceed CMP LOS standards in the interim. The remaining two intersections have been studied to identify possible improvements, but the City of Sunnyvale and the City of Santa Clara have determined that the improvements required to meet LOS standards are not feasible.

Study intersections located on Lawrence Expressway were evaluated as part of the *Countywide Expressway Planning Study*, November 2002, conducted by the Santa Clara County Roads and Airports Department. This study included year 2025 intersection level of service analyses based on traffic forecasts using the Santa Clara County Traffic Model. Expressway intersections were evaluated for level of service, vehicle queuing, and travel times. The report referenced in this study is titled the *Lawrence Expressway Comprehensive County Expressway Planning Study* (November 25, 2002).

Study intersections not located on Lawrence Expressway were evaluated explicitly for this study and were done so based on traffic forecasts using the City of Sunnyvale Traffic Model. Table 2 describes the reason for deficiency at each of the six intersections and identifies the degree to which the level of service at these intersections is expected to fall below the CMP LOS standard.

Table 2
Reason for Deficiency

CMP Facility	Reason for Deficiency
Mary Avenue & El Camino Real	This facility is expected to degrade to LOS F before improvements can be implemented; turn lanes are planned for this facility, and w/ these improvements the facility is expected to achieve or surpass CMP LOS standard.
Wolfe Road & El Camino Real	The City of Sunnyvale has determined that there is no feasible improvement for this facility due to the impacts associated with acquiring additional needed right-of-way. The intersection's proximity to the intersection at Wolfe Road and Fremont Avenue is also a factor in the degraded level of service expected at this intersection. This facility is expected to degrade to LOS F.
Sunnyvale-Saratoga Road & Remington Drive	This facility is expected to degrade to LOS F before improvements can be implemented; turn lanes are planned for this facility, and w/ these improvements the facility is expected to achieve or surpass CMP LOS standard.
Lawrence Expwy. & Arques Avenue	Expected to degrade to LOS F before improvements can be implemented; grade separation is planned for this facility, and w/ this improvement the facility is expected to achieve or surpass CMP LOS standard.
Lawrence Expwy. & Reed Avenue/Monroe Street	This facility is expected to degrade to LOS F before improvements can be implemented; grade separation is planned for this facility, and w/ this improvement the facility is expected to achieve or surpass CMP LOS standard.
Lawrence Expwy. & Homestead Road	There is no feasible improvement for this facility; grade separation would be required for satisfactory traffic operations, but this improvement requires additional right-of-way that the City of Santa Clara has determined is not feasible. This facility is expected to degrade to LOS F.

Source: Hexagon Transportation Consultants

Impact of Development on Transportation Conditions

Anticipated deficiencies identified in this plan are the result of development in Sunnyvale and the surrounding area. For the purposes of this study, growth is measured against 1998 development levels. Anticipated development in Sunnyvale includes:

- Buildout of the Sunnyvale General Plan
- Development of the Moffett Park Specific Plan
- Residential intensification in the Fair Oaks area
- Residential intensification in Downtown

Combined, this development will result in 12,763 new residential units, approximately 2.5 million square feet of retail space, 621,000 square feet of industrial space, and 14.8 million square feet of research and

development (R & D) space (this includes Moffet Park and represents a combination of office space, manufacturing, warehouse, and ancillary uses). The areas expected to add the greatest number of new residential units are the Fair Oaks area, Downtown, and the area near Lawrence Expressway and Reed Avenue.

The change in commercial (retail, office, industrial, R & D) square footage under the plan is expected to occur within the existing industrial areas, especially Moffett Park. A summary of additional planned development in the City of Sunnyvale is shown in Table 3.

Table 3
Summary of Planned Future Land Uses

Land Use	Additional Planned Development ¹
Single Family Detached	371 units
Multi Family Attached	12,392 units
Retail	2,498,000 s.f.
Industrial	621,000 s.f.
R&D	14,756,000 s.f.

Source: City of Sunnyvale

Notes: ¹Change relative to 1998 land uses

²The land use growth forecasts are consistent with Association of Bay Area Governments (ABAG) forecasts for year 2020.

CHAPTER 3 IMPROVEMENT LIST FOR DEFICIENT CMP INTERSECTIONS

The purpose of this chapter is to describe the physical improvements necessary to maintain the CMP LOS standard on subject facilities, provide statements explaining why certain facilities cannot be improved to operate with the CMP traffic LOS standard, and summarize an analysis of system-wide benefits to CMP facilities that would result from implementation of the Sunnyvale Citywide Deficiency Plan. The improvements described below are preliminary designs only, and details about specific right-of-way and design features will be worked out when the improvements are programmed. Estimated costs are planning-level estimates only.

Mary Avenue & El Camino Real

The recommended improvement at this intersection is to provide a separate southbound right-turn lane. This improvement will require additional right-of-way, pavement widening, restriping, and signal modifications. The estimated cost is \$500,000. This improvement will maintain the level of service at this facility at LOS E, consistent with the CMP LOS standard.

Wolfe Road & El Camino Real

The City of Sunnyvale has determined that there is no feasible improvement for this facility due to the impacts associated with acquiring additional needed right-of-way. The intersection's proximity to the intersection at Wolfe Road and Fremont Avenue is also a factor in the degraded level of service expected at this intersection. This facility is projected to operate at LOS F into the future.

Sunnyvale-Saratoga Road & Remington Drive

The recommended improvements at this intersection are to provide a separate northbound right-turn lane and a separate westbound right-turn lane. These improvements will require additional right-of-way, pavement widening, restriping, and signal modifications. The estimated cost is \$1,000,000. This improvement will maintain the level of service at this facility at LOS E, consistent with the CMP LOS standard.

Lawrence Expressway & Arques Avenue

The Lawrence Expressway report identified the need to construct an interchange with square loops at Arques Avenue. The report estimated the improvement cost to be \$35 million. This improvement will maintain the level of service at this facility at LOS D, consistent with the CMP LOS standard.

Lawrence Expressway & Reed Avenue/Monroe Street

The Lawrence Expressway report identified the need to construct an urban interchange at this intersection. The report estimated the improvement cost to be \$40 million. This improvement will maintain the level of service at this facility at LOS D, consistent with the CMP LOS standard.

Lawrence Expressway & Homestead Road

The Lawrence Expressway report identified the need for unspecified side street improvements at this intersection. Though an interchange is needed for satisfactory traffic conditions, there is not sufficient room for an interchange without considerable right-of-way acquisition, which the City of Santa Clara does not support. This improvement is therefore considered to be infeasible. Potential improvements that are feasible include the addition of an eastbound through lane and a westbound through lane on Homestead Road. These improvements will require additional right-of-way, pavement widening, restriping, signal modifications, and removal of on-street parking. The cost associated with this specific improvement was not provided in the Lawrence Expressway report, but is estimated here at \$1,000,000. This project is the responsibility of the City of Santa Clara and is not therefore discussed in the Chapter 5 Action Plan. The level of service at this facility is expected to degrade to LOS F in the future.

Table 4 summarizes future conditions and improvements costs for the six CMP facilities studied in this deficiency plan. Table 5 provides an analysis of system-wide benefits to CMP facilities that would result from the implementation of the Sunnyvale Citywide Deficiency Plan.

Table 4
Summary of Future Conditions w/ Deficiency Plan Improvements—CMP Facilities

CMP Facility	LOS w/ Planned Improvements		Estimated Cost
	AM Peak	PM Peak	
Mary Avenue & El Camino Real	D	E	\$500,000
Wolfe Road & El Camino Real	F	F	N/A
Sunnyvale-Saratoga Road & Remington Drive	E+	E	\$1,000,000
Lawrence Expwy. & Arques Avenue	D	D	\$35,000,000
Lawrence Expwy. & Reed Avenue/Monroe Street	D	D	\$40,000,000
Lawrence Expwy. & Homestead Road	E+	F	N/A
Total Cost			\$76,500,000

Source: Hexagon Transportation Consultants; City of Sunnyvale

Table 5
Analysis of System-Wide Benefits to CMP Facilities

CMP Facility	Remaining Capacity at Buildout (Peak-Hour Trips)
Mary Avenue & El Camino Real	264
Wolfe Road & El Camino Real	-529
Sunnyvale-Saratoga Road & Remington Drive	393
Lawrence Expwy. & Arques Avenue	7,907
Lawrence Expwy. & Reed Avenue/Monroe Street	1,582
Lawrence Expwy. & Homestead Road	-1,388
System-Wide Benefit (Peak Hour Trips)	8,664

Source: Hexagon Transportation Consultants

CHAPTER 4 Deficiency Plan Action List

The purpose of this chapter is two-fold: 1) to identify physical improvements to non-CMP facilities designed to provide further offset for CMP deficiencies, and 2) to describe how all feasible and appropriate actions on the Congestion Management Agency's Immediate Implementation Action List will be implemented as part of the deficiency plan.

Offsetting Roadway Improvements

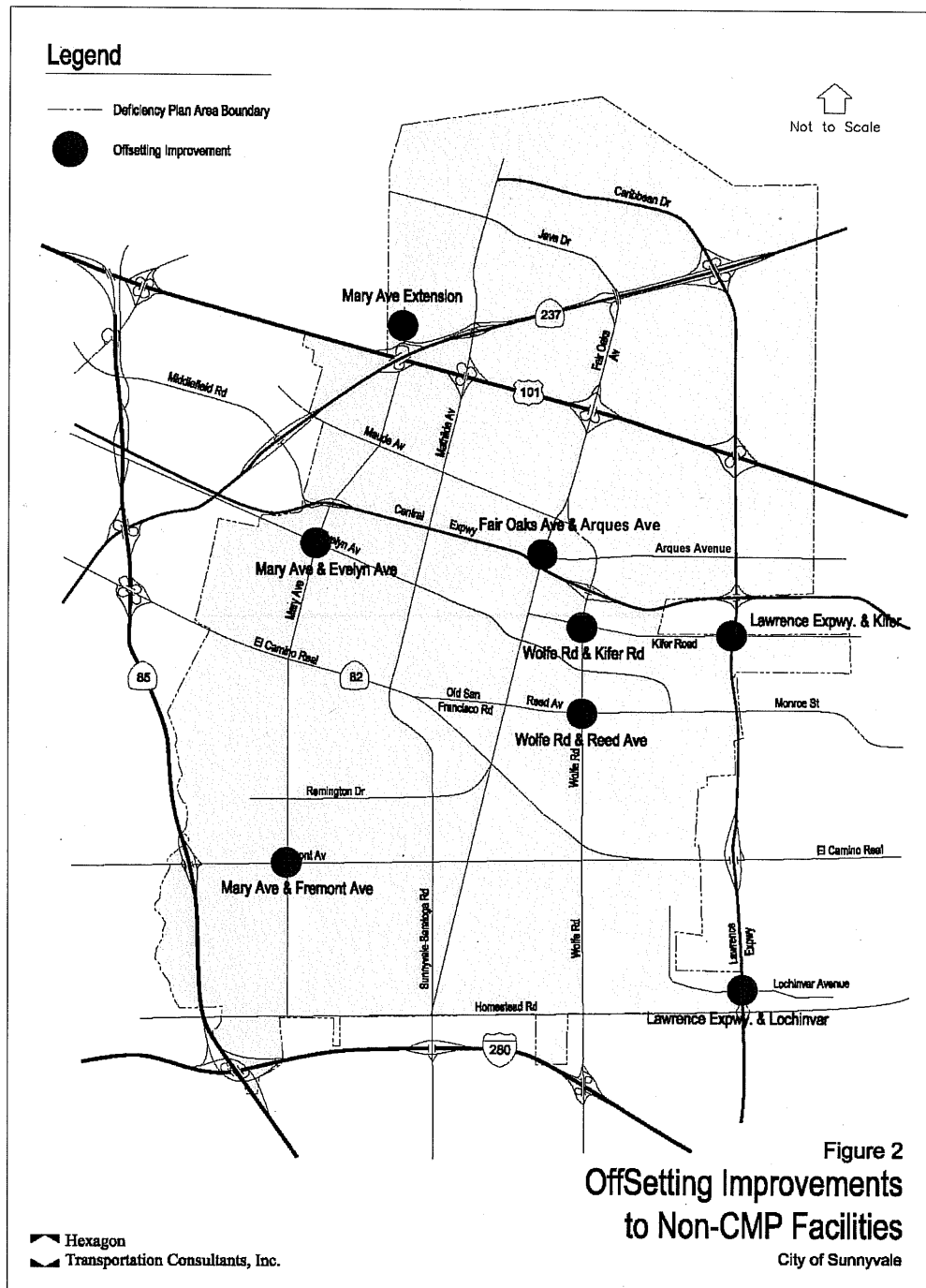
The City of Sunnyvale has identified eight physical improvements to non-CMP intersections that will further offset CMP deficiencies. As with the CMP intersection improvements, the offsetting improvements described below are preliminary designs only, and details about specific right-of-way and design features will be worked out when the improvements are programmed. Estimated costs are planning-level estimates only. Figure 2 shows offsetting improvements to non-CMP facilities.

Mary Avenue Extension

Mathilda Avenue at SR 237 ("The Monster") does not have any excess capacity to accommodate growth. The intersection consists of several closely-spaced intersections with multiple turning movements that together are considered to operate at LOS F. Previous studies identified the extension of Mary Avenue over SR 237 and US 101 as an improvement that could alleviate some of the congestion at the Monster by diverting traffic off Mathilda Avenue. The estimated cost is \$50 million. The VTA, however, is conducting a new study to investigate whether there are other options to the Mary Avenue extension. The City of Sunnyvale, which is participating in the study, expanded the scope of the study to include the SR 237/Mathilda Avenue corridor. The study is expected to be completed in 2004 and could result in improvements other than the Mary Avenue extension. The study also could result in a shared-funding arrangement where Sunnyvale does not pay all of the cost of improvements. Thus, the assumption used herein that the needed improvement is the Mary Avenue extension and that Sunnyvale will pay for all of the improvement cost is a worst-case assumption.

While the Monster is already operating poorly as a result of existing traffic, the need for the Mary Avenue extension would be the result of new development. Forecasts show up to 1,000 cars would use the Mary Avenue extension during peak hours, but the Monster still would operate at LOS F. The Mary Avenue extension, however, would ensure that conditions would not deteriorate below existing levels.

**Figure 2. Offsetting Improvements to Non-CMP Facilities
Sunnyvale Deficiency Plan**



Mary Avenue & Fremont Avenue

The recommended improvement is to add a second eastbound left-turn lane. This improvement will require additional right-of-way, pavement widening, restriping, and signal modifications. The estimated cost is \$800,000. This improvement will maintain the level of service at this facility at LOS D.

Mary Avenue & Evelyn Avenue

The recommended improvement is to add a southbound right-turn lane. This improvement will require additional right-of-way, pavement widening, restriping, and signal modifications. The estimated cost is \$500,000. This improvement will maintain the level of service at this facility at LOS D.

Fair Oaks Avenue & Arques Avenue

The recommended improvement is to provide a separate southbound right-turn lane. This improvement will require additional right-of-way, pavement widening, restriping, and signal modifications. The estimated cost is \$500,000. This improvement will maintain the level of service at this facility at LOS D.

Wolfe Road & Kifer Road

The recommended improvements are to provide separate right-turn lanes on all four approaches, to add a second eastbound left-turn lane and to add a second westbound left-turn lane. These improvements will require additional right-of-way, pavement widening, restriping, and signal modifications. The estimated cost is \$1,000,000. This improvement will maintain the level of service at this facility at LOS D.

Wolfe Road & Reed Avenue

The recommended improvement is to provide a separate westbound right-turn lane. This improvement will require additional right-of-way, pavement widening, re-striping, and signal modifications. The estimated cost is \$500,000. This improvement will maintain the level of service at this facility at LOS D.

Lawrence Expressway & Lochinvar Avenue

The recommended improvement is to remove a traffic signal and install a median island. The estimated cost is \$34,000. This project should improve traffic operations at the intersection of Lawrence Expressway and Homestead Road, a CMP intersection.

Lawrence Expressway & Kifer Road

The Lawrence Expressway report identified the need construct an urban interchange at this intersection. The report estimated the improvement cost to be \$35 million. This improvement will maintain the level of service at this facility at LOS D, consistent with the City of Sunnyvale LOS standard.

Table 6 summarizes future conditions and costs associated with the offsetting improvements to non-CMP facilities included in this deficiency plan.

Table 6
Future Conditions w/ Deficiency Plan Improvements—Non-CMP Facilities

Non-CMP Facility	LOS w/ Planned Improvements		Estimated Cost
	AM Peak	PM Peak	
Mary Avenue Extension	F	F	\$50,000,000
Mary Avenue & Fremont Avenue	D	D	\$800,000
Mary Avenue & Evelyn Avenue	D	D	\$500,000
Fair Oaks Avenue & Arques Avenue	D-	D-	\$500,000
Wolfe Road & Kifer Road	D	D	\$1,000,000
Wolfe Road & Reed Avenue	D	D	\$500,000
Lawrence Expressway & Lochinvar Avenue	n/a	n/a	\$34,000
Lawrence Expressway & Kifer Road	D	D	\$35,000,000
Total Cost			\$88,334,000

Offsetting Actions from Immediate Implementation Action List

The Santa Clara County Transportation Authority (VTA) has adopted a list of action items for immediate implementation, and this section describes the items from this list that the City of Sunnyvale City is planning to undertake to offset the effects of deficiencies in the CMP transportation system anticipated by this plan. Table 7 summarizes the CMA Immediate Implementation Action List.

Table 7
Santa Clara County CMA Immediate Implementation Action List

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
Bicycle and Pedestrian Actions	
A-1 Transit and Bicycle Integration (Deferred Action)	<ul style="list-style-type: none"> ❖ The Downtown Specific Plan Policy C.6: "Provide adequate access to parking in the downtown," and Policy C.7: "Follow the VTA standards for bicycle parking to the extent possible."
A-2 Bike Lockers, Racks, and Facilities at Transit Centers	<ul style="list-style-type: none"> ❖ The City installed 100 bicycle lockers as part of the Sunnyvale Multimodal Station construction. The estimated cost of these lockers was \$150,000. ❖ The City has a Bike Parking Incentive Program that supplies free bike wave racks for installation by businesses and retail establishments. The cost of this program is \$10,000. These facilities are often in

CMA Action Item**CMA Action Items Implemented in Deficiency Plan**

**A-3 Improve Roadside
Bicycle Facilities**

proximity to bus stops.

- ❖ The City does not have jurisdiction over most transit centers in the City, but it supports and advocates to the VTA and Caltrain for bike parking facilities.
- ❖ General Plan policy calls for the City to "Ensure safe and efficient pedestrian and bicycle connections to neighborhood transit stops" (LUTE C3.5.7) and to "develop clear, safe and convenient linkages between all modes of travel: including, access to transit stations and stops, and connections between work, home and commercial sites." (LUTE C3.6.1).
- ❖ The VTA provides bike racks and access on all buses and LRV's, and Caltrain provides bike lockers at the Lawrence Station.
- ❖ Arques Avenue bike lanes. Provided bike lanes through the Lawrence-Arques CMP intersection. Completed
- ❖ Caribbean Drive bike lanes. Provided bike lanes the length of Caribbean Drive, a CMP facility. Completed
- ❖ Mathilda Avenue Class III bike route. Completed 2004; provided shoulder and signing on Mathilda Avenue from Route 237 to Java Drive, a CMP facility. Completed
- ❖ Mathilda Avenue/Caltrain Bridge widening for bicycles. In design.
- ❖ Moffett Park Drive, Old Mountain View-Alviso Road bike lanes. (Cross County Corridor 8). Completed
- ❖ Mary Avenue road diet, Homestead Road to Fremont Avenue, and bike lanes. Maude Avenue to Almanor Avenue (Cross-County Corridor 3). Completed
- ❖ Maude Avenue Bike Lanes and Bike Route. Mathilda to Route 237 (Cross County Corridor 1). Completed
- ❖ Wolfe Road Sharrows. El Camino Real to Old San Francisco Road (Cross County Corridor 14). Completed
- ❖ Mary Avenue, Fremont to Maude. Install bike lanes. This would involve some roadway widening, re-striping, and removal of on-street parking. The estimated cost is \$240,000.
- ❖ Wolfe Road, Maria to Homestead. Install bike lanes. This involves providing signage and legends. The estimated cost is \$40,000.
- ❖ Mathilda Avenue, Maude to El Camino. Install bike lanes. This would involve roadway widening. The estimated cost is \$470,000.
- ❖ Java Drive, Crossman to Mathilda. Install bike lanes. This would involve roadway widening. The estimated cost is \$300,000.

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
A-4 Improve Pedestrian Facilities	<ul style="list-style-type: none"> ❖ In order to preserve an acceptable pedestrian environment in conjunction with roadway widening and to support walking as an alternative for short trips, the city's sidewalk system will be upgraded and completed. The city has prepared a study of sidewalk needs and has estimated the total cost of improvements to be \$6 million, which will be funded by the traffic impact fee.
Public Transit	
B-3 Shuttle Service (Existing Employment Centers)	<ul style="list-style-type: none"> ❖ The City is a member of the Moffett Park Business and Transportation Association, which provides information to 12,000 + employees in the Moffett Industrial Park on transportation alternatives, transit schedules, and other transportation issues and plans.
B-8 Bus Stop Improvements	<ul style="list-style-type: none"> ❖ The City requires that bus stop improvements be made as part of improvements to adjacent development or redevelopment at major bus stop locations. Bus duckouts, pads, and electrical service have been required at five locations in the past five-plus years. The City has also constructed a duckout and shelter with electrical service at City Hall.
	<ul style="list-style-type: none"> ❖ The City also participates in the Valley Transportation Authority Bus Shelter Advertising Program, which provides bus shelters at various locations around the City in exchange for advertising rights. ❖ Sunnyvale GP Action 3.7B.3c. Requires site design to encourage transit circulation and stops/waiting areas for transit and carpools.
Carpooling, Bus Pooling, Van Pooling, Taxi Pooling	
C-1 Enhanced Trip Reduction Program	<ul style="list-style-type: none"> ❖ The City is a member of the Moffett Park Business and Transportation Association, which provides information to 12,000 + employees in the Moffett Industrial Park on transportation alternatives, transit schedules, and other transportation issues and plans.
	<ul style="list-style-type: none"> ❖ The City adopted the Moffett Park Specific Plan, which includes a requirement for a 20% trip reduction by all occupants of newly constructed facilities in Moffett Park.
High Occupancy Vehicle (HOV) Facilities	
D-1 Arterial HOV/Transit Lanes	<ul style="list-style-type: none"> ❖ It is not the policy of the City of Sunnyvale to pursue HOV-type improvements on city streets. With regard to Lawrence Expressway, the City has supported HOV-type improvements on selected portions of the facility.
D-2 Implement MTC's 2005 HOV Plan	<ul style="list-style-type: none"> ❖ See above
D-3 Construct HOV Support Facilities	<ul style="list-style-type: none"> ❖ See above

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
D-4 Construct HOV Connections and Ramps	❖ See above
D-5 Construct HOV Bypass Facilities	❖ See above

Transportation Demand Management (TDM) Programs

- | | |
|---------------------------------|---|
| E-2 Public Information Programs | <ul style="list-style-type: none"> ❖ The City is a member of the Moffett Park Business and Transportation Association, which provides information to 12,000 + employees in the Moffett Industrial Park on transportation alternatives, transit schedules, and other transportation issues and plans. ❖ The City adopted the Moffett Park Specific Plan, which includes a requirement for a 20% trip reduction by all occupants of newly constructed facilities in Moffett Park. |
|---------------------------------|---|

Traffic Flow Improvements

- | | |
|---|--|
| F-2 Peak-Hour Parking and Delivery Restrictions | <ul style="list-style-type: none"> ❖ It is not the policy of the City of Sunnyvale to pursue these types of capacity enhancements on city streets, although such improvements could be proposed by large development as part of a TDM program. |
| F-3 Traffic Signal Timing and Synchronization Program | <ul style="list-style-type: none"> ❖ Sunnyvale GP, Action 3.7A.2b. The City should give high priority to traffic improvements that improve vehicle operating conditions (average speed, delay) such as signal timing improvements, signal synchronization, turn lanes, etc. ❖ The City budgets about \$64,000 a year for signal timing and optimization over the life of the current 10-year budget. |
| F-4 Traffic Flow Improvements in Urban Areas | <ul style="list-style-type: none"> ❖ Various improvements at CMP and non-CMP intersections as described in Chapter 3 |

Site Design Guidelines for New Development

- | | |
|---|---|
| G-1 HOV Parking Preference Program | <ul style="list-style-type: none"> ❖ The Sunnyvale Municipal Code provides that a minimum of 10 percent of all parking places in industrial or service zoning districts shall be reserved for carpool vehicles, and those spaces shall be nearest to the principal building on the premises. ❖ Also, if a car pool or similar program is required as an environmental mitigation measure of any development, use or design permit, carpool spaces shall be provided convenient to building entrances. (SMC 19.46.030a, b) |
| G-2 Bike Facilities at Development Projects | <ul style="list-style-type: none"> ❖ Bicycle parking can be substituted for up to 5 percent of the required vehicle parking for industrial development, in a ratio of eight bike spaces for one vehicle space, or one shower/dressing room for two spaces, or a combination thereof. (SMC 19.46-030c) |

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
G-3 Building Orientation/ Placement at Employment Sites	❖ City of Sunnyvale requires bike facilities as part of new large developments
	❖ The Sunnyvale City Council has endorsed the Valley Transportation Authority Community Design and Transportation Best Practices, which provide comprehensive guidance on building orientation and placement.
	❖ The Moffett Park Specific Plan contains site planning and architectural guidelines that promotes the orientation of buildings toward the adjacent light rail corridor and encourages the placement of high-density development for easy access to light-rail transit.
	❖ City of Sunnyvale requires sidewalk development as part of new industrial development (SMC Section 19.38.080 Sidewalks--Industrial districts)
	❖ Citywide Design Guidelines, Site Design (A8). Link on-site walkways to the public sidewalk system outside the project for ease of pedestrian access.
	❖ Citywide Design Guidelines, Site Design (A9). Provide pedestrian links between residential developments and nearby employment and shopping centers, schools and parks to encourage pedestrian activities.
G-4 Pedestrian Circulation System	❖ Citywide Design Guidelines, Site Organization (B5). Do not dominate street frontage of projects by surface parking to encourage pedestrian orientation and a continuous streetscape. Limit paved areas on street frontages of non-residential developments to one double row of parking and locate the rest of the parking elsewhere on the site.
	❖ Citywide Design Guidelines, Site Organization (B10). Provide convenient and safe pedestrian and automobile access to the site from adjacent streets.
	❖ Citywide Design Guidelines, Scale and Character (B8). In non-residential buildings maintain visually interesting activities at the street level by placing active facades with windows and openings on the street side to promote pedestrian activities.
	❖ Citywide Design Guidelines, Architecture and Design (C13). Define building entries by use of human scale architectural elements such as arches, posts, awnings, etc. Orient main entries toward public streets.
	❖ Citywide Design Guidelines, Circulation and Parking (A7). Separate pedestrian and automobile traffic paths, and minimize conflict areas for safety.
	❖ Citywide Design Guidelines, Circulation and Parking (A8). Provide walkways to connect parking lots to building entrances. Define walkways by landscaping, lighting and paving.

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
G-5 Bike Storage at Residential Development Projects	<ul style="list-style-type: none"> ❖ Transportation Strategic Program, Comprehensive Sidewalk Completion. Completion of sidewalk network in industrial areas funded by traffic improvement fees. ❖ Downtown Development Program, Mathilda Boulevard Style Streetscape Improvements. Sidewalk, median landscape, streetscape improvements, parking lane, Iowa Avenue to Caltrain. ❖ The City of Sunnyvale requires multifamily residential developments of five or more units to have secured bicycle parking at a ratio of one secured bicycle parking space for every four units, but no fewer than four spaces/bike racks for guest parking (SMC Sec. 19.46.050, Note No. 1). ❖ The City of Sunnyvale also requires lockable storage for multifamily housing projects, which may be used for bike storage.
G-6 Shuttle Service (New Development)	<ul style="list-style-type: none"> ❖ The Moffett Park Specific Plan TDM program lists shuttle service as an option for new development. ❖ This program is an option for traffic mitigation in compliance w/ CEQA ❖ The City requires as a condition of approval that bus stop improvements be made as part of improvements to adjacent development or redevelopment at major bus stop locations. Bus duckouts, pads, and electrical service have been required at five locations in the past five-plus years. This practice will continue. The City has also constructed a duckout and shelter with electrical service at City Hall.
G-7 Transit Stop Improvements	<ul style="list-style-type: none"> ❖ The City also participates in the Valley Transportation Authority Bus Shelter Advertising Program, which provides bus shelters at various locations around the City in exchange for advertising rights. ❖ Sunnyvale GP Action 3.7B.3c. Requires site design to encourage transit circulation and stops/waiting areas for transit and carpools.
G-8 Multi-Tenant Complex TDM Program	<ul style="list-style-type: none"> ❖ Moffett Park Specific Plan; this program is also an option for traffic mitigation in compliance w/ CEQA;
Land-Use Program	
H-1 Mixed-Use Development	<ul style="list-style-type: none"> ❖ Downtown Specific Plan Goal B: "Establish the Downtown as the cultural, retail, financial and entertainment center of the community, complemented by employment, housing and transit opportunities." Policy B1: "Encourage mixed uses throughout the downtown when consistent with the district character." ❖ Lawrence/101 Specific Plan facilitated apartment development mixed with a small amount of retail use.

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
	<ul style="list-style-type: none"> ❖ Fair Oaks/Tasman GPA allows mixed-use development. ❖ El Camino Precise Plan Policy N1.11: "Recognize El Camino Real as a primary retail corridor with a mix of uses." Action N1.11.1: "Use the Precise Plan for El Camino Real to protect legitimate business interests, while providing sufficient buffer and protection for adjacent and nearby residential uses." ❖ Redevelopment of the Sunnyvale Town Center (mall area) by Forum includes 292 dwellings units mixed with one million square feet of retail and 282,000 square feet of office use. ❖ Sunnyvale GP Action 3.7B.1b: "Promote mixed land use development that provides commercial services such as day care, restaurants, banks and stores near employment centers, reducing auto trip generation by promoting pedestrian travel. Promote neighborhood commercial and park uses within residential developments to reduce short auto trip generation by making pedestrian and bicycle trips feasible (for example, require sidewalks, bike trails and bicycle parking areas)."
H-2 Childcare Facilities near Transit and Worksites	<ul style="list-style-type: none"> ❖ See above
H-3 Affordable Housing near Worksites	<ul style="list-style-type: none"> ❖ The City of Sunnyvale is in the process of converting selected industrial area to residential use, which is resulting in an infusion of housing into areas adjacent to employment centers. For example, recent residential development in the Tasman/Fair Oaks area is only one transit stop away from the Moffett Park Specific Plan Area. ❖ Downtown Specific Plan Goal C: "Promote a balanced street system that serves all users well regardless of their mode of travel." Policy C.3: "Promote the use of public transit by intensifying land use and activities near transit cores." ❖ Redevelopment of the Sunnyvale Town Center (mall area) by Forum includes 292 dwellings units in proximity to light-rail transit
H-4 High Density Development near Transit	<ul style="list-style-type: none"> ❖ The Futures Study has resulted in up-zoning and re-zoning in many parts of Sunnyvale. ❖ Sunnyvale GP Action 3.7B.1a. Promote extension of transit systems, and locate higher density development and redevelopment along transit corridors; Sunnyvale GP Action 3.7B.3a: "Increase densities near transit stations." ❖ The Moffett Park Specific Plan created a high density transit oriented development zoning designation along the Tasman light rail corridor. ❖ The land near the Fair Oaks light rail corridor has been rezoned to transition from industrial to high density residential.

CMA Action Item	CMA Action Items Implemented in Deficiency Plan
H-5 Establish Telecommuting Centers	❖ This program is an option for traffic mitigation in compliance w/ CEQA
H-6 Auto-Free/Transit Only Zone	❖ It is not the policy of the City of Sunnyvale to pursue these types of transit enhancements on city streets, although such improvements could be proposed by large development as part of a TDM program.

Source: Requirements for Deficiency Plans, Santa Clara County CMA, November 1992; City of Sunnyvale

Each of the alternative action items identified above is contained in the VTA's Immediate Implementation Action List. As such, each of these actions has been found to contribute to an improvement of air quality in the region.

CHAPTER 5 ACTION PLAN

The purpose of this chapter is to describe how deficiency plan action items will be implemented, identify the responsible agency for implementing each action, and identify the funding source for each action.

Summary of Improvement Costs

The City of Sunnyvale has identified approximately \$171.9 million in needed transportation improvements. Of this total amount, \$100.0 million will be funded through a combination of state and regional transportation funds and countywide taxes. The remaining \$71.9 million will be funded by the City of Sunnyvale's two-tiered traffic impact fee, which was adopted by the City of Sunnyvale in November 2003. Tier 1 applies to areas outside of the Moffett Industrial Park (\$28.4 million), and Tier 2 applies to the industrial area north of Route 237 (Moffett Park Specific Plan area) and includes funding of a local share of Mathilda/237 area improvements (\$38.4 million).

Table 8 itemizes the transportation improvement projects identified by the City of Sunnyvale and associated costs. At the end of Table 8, these costs are divided into three categories—Tier 1 improvements, Tier 2 improvements, and other improvements funded by non-city sources.

Table 8
Transportation Improvement Cost Summary

Location (Type)	Cost
CMP Intersection Improvements	
* Mary Avenue & El Camino Real	\$500,000
* Wolfe Road & El Camino Real	N/A
* Sunnyvale-Saratoga Road & Remington Drive	\$1,000,000
* Lawrence Expressway & Arques Avenue	\$35,000,000
*** Lawrence Expressway & Monroe Street (Non-City funds)	\$40,000,000
Subtotal CMP Intersection Improvements	\$76,500,000

Location (Type)	Cost
Offsetting Improvements to Non-CMP Intersections	
** Mary Avenue Extension (City's share is 50%)	\$50,000,000
* Mary Avenue & Fremont Avenue	\$800,000
* Mary Avenue & Evelyn Avenue	\$500,000
* Fair Oaks Avenue & Arques Avenue	\$500,000
* Wolfe Road & Kifer Road	\$1,000,000
* Wolfe Road & Reed Avenue	\$500,000
* Lawrence Expressway & Lochinvar Avenue	\$34,000
*** Lawrence Expressway & Kifer Road (Non-City funds)	\$35,000,000
Subtotal Non-CMP Intersection Improvements	\$88,334,000
Offsetting Action from CMA Immediate Implementation Action List	
* Arques Avenue Bike Lanes	Completed
* Caribbean Drive Bike Lanes	Completed
* Mathilda Avenue Class III Bike Route	Completed
* Mathilda Avenue/Caltrain Bridge Widening for Bicycles	Included in cost of bridge
** Moffett Park Drive, Old Mountain View-Alviso Road Bike Lanes	Completed
** Mary Avenue Road Diet and Bike Lanes	Completed
** Maude Avenue Bike Lanes and Bike Route	Completed
** Wolfe Road Sharrows	Completed
* Mary Avenue Bike Lanes	\$240,000
* Wolfe Road Bike Lanes	\$40,000
* Mathilda Bike Lanes	\$470,000
* Java Drive Bike Lanes	\$300,000
* Citywide Sidewalk Improvements	\$6,000,000
Subtotal Immediate Implementation Action Items	\$7,050,000
Total	\$171,884,000
Fees Already Collected	\$5,090,705
Tier 1 Improvement Costs	\$28,419,441
Tier 2 Improvement Costs	\$38,373,854
Improvement Costs Funded by Non-City Sources	\$100,000,000

Note: *The responsibility for these projects rests with the City of Sunnyvale.

**The responsibility for this project rest jointly with the City of Sunnyvale and the County of Santa Clara

***The responsibility for these projects rests with the County of Santa Clara

Source: Hexagon Transportation Consultants; November 11, 2003 Staff Report to Sunnyvale City Council

Summary of Sunnyvale Traffic Impact Fees

The City of Sunnyvale's two-tiered traffic impact fee is based on PM peak-hour trip-making characteristics of the particular land use proposed for development in the City of Sunnyvale. The PM peak hour is used because it is the PM peak hour during which traffic conditions are the worst. The total increase in PM peak hour trips through 2020 was estimated to be 23,368 for both fee areas. For Tier 1, the cost per vehicle trip is \$1,787.16 (\$46,884,000 minus \$5,090,705 in fees already collected, times 68%, divided by 15,902 trips). For Tier 2, the cost per vehicle trip is \$5,139.81 (\$46,884,000 minus \$5,090,705 in fees already collected, times 32%, plus \$25,000,000, divided by 7,466 trips). Tier 1 and Tier 2 impact fees by land use type are presented in Tables 9 and 10, respectively.

Table 9
Tier 1 Impact Fees (south of Route 237)

Land Use	Fee	Unit of Measure
SF Detached	\$1,805.03	Per dwelling unit
MF Attached	\$1,108.04	Per dwelling unit
Office	\$2,662.87	Per 1,000 sq.ft
Retail	\$3,341.99	Per 1,000 sq.ft.
Industrial	\$1,322.50	Per 1,000 sq. ft.
R&D	\$1,751.42	Per 1,000 sq.ft.
Hotel	\$1,090.17	Per room

Source: November 11, 2003 Staff Report to Sunnyvale City Council

Table 10
Tier 2 Impact Fees (Industrial Area North of Route 237)

Land Use	Fee	Unit of Measure
Industrial	\$3,032.49	Per 1,000 sq. ft.
R&D	\$4,009.06	Per 1,000 sq. ft.
Destination Retail	\$9,611.45	Per 1,000 sq. ft.
Neighborhood Retail	\$4,805.73	Per 1,000 sq. ft.
Hotel	\$3,135.29	Per room

Source: November 11, 2003 Staff Report to Sunnyvale City Council

CHAPTER 6 DEFICIENCY PLAN MONITORING

The purpose of this chapter is to describe how the City of Sunnyvale will monitor and evaluate the implementation of the Action Plan set forth in this Deficiency Plan. Table 11 sets forth a schedule for implementation of the Action Plan. Evaluation of CMP levels of service will be accomplished through periodic updates to the City's traffic model and impact fee system.

Table 11
Action Plan Implementation Schedule

Location (Type)	Schedule for Improvement
Implementation of Sunnyvale Impact Fees	Completed
Periodic Update of Traffic Model	Every 5 years
Periodic Update of Sunnyvale Impact Fees	Every 5 years
CMP Intersection Improvements	
Mary Avenue & El Camino Real	2010
Wolfe Road & El Camino Real	N/A
Sunnyvale-Saratoga Road & Remington Drive	2010
Lawrence Expressway & Arques Avenue	2020
Lawrence Expressway & Monroe Street (Non-City funds)	2020
Offsetting Improvements to Non-CMP Intersections	
Mary Avenue & Fremont Avenue	2010
Mary Avenue & Evelyn Avenue	2010
Fair Oaks Avenue & Arques Avenue	2010
Wolfe Road & Kifer Road	2010
Wolfe Road & Reed Avenue	2010
Lawrence Expressway & Lochinvar Avenue	2010

Location (Type)	Schedule for Improvement
Mary Avenue Extension (City's share is 50%)	2020
Lawrence Expressway & Kifer Road (Non-City funds)	2020
Offsetting Action from CMA Immediate Implementation Action List	
Arques Avenue Bike Lanes	Completed
Caribbean Drive Bike Lanes	Completed
Mathilda Avenue Class III Bike Route	Completed
Mathilda Avenue/Caltrain Bridge Widening for Bicycles	2005
Moffett Park Drive, Old Mountain View-Alviso Road Bike Lanes	Completed
Mary Avenue Road Diet and Bike Lanes	Completed
Maude Avenue Bike Lanes and Bike Route	Completed
Wolfe Road Sharrows	Completed
Mary Avenue Bike Lanes	2010
Wolfe Road Bike Lanes	2010
Mathilda Bike Lanes	2010
Java Drive Bike Lanes	2010
Citywide Sidewalk Improvements	2010
Miscellaneous Action Items	
Moffett Park Business and Transportation Association membership	Completed
Operating budgets for signal coordination	Completed
Municipal Code requirements for HOV parking, sidewalks, bike parking at residential development	Completed
Downtown Specific Plan, El Camino Precise Plan, Futures Study, Fair Oaks/Tasman GPA land use actions to promote mixed use, high densities near transit	Completed
Moffett Park Specific Plan, which promotes high densities near transit	Completed

Source: City of Sunnyvale

CHAPTER 7 ENVIRONMENTAL DOCUMENTATION

The purpose of this chapter is to describe the reconciliation of CEQA with actions included in the deficiency plan. Per Public Resources Code § 21080 (b)(13), congestion management programs are exempt by statute from the provisions of the California Environmental Quality Act (CEQA). As established in Government Code §§ 65089 et seq., a deficiency plan is a required part of a congestion management program when certain conditions are met. As such and within certain parameters, a deficiency plan enjoys the same statutory exemption as the CMP.

The purpose of the deficiency plan is to identify and implement measures that will improve traffic conditions in a locality, and as such implementation of the plan would lead to improved environmental conditions. Furthermore, items identified from the CMA's Immediate Implementation Action List have also been identified by the Bay Area Air Quality Management District as actions that when implemented will have a positive impact on air quality in the region. To the degree that individual projects identified in the Sunnyvale Citywide Deficiency Plan have the potential for creating ancillary (i.e., localized) impacts to the environment, such impacts will be evaluated as individual projects come forward for design and construction.

Appendix A
Santa Clara County Transportation Authority
Immediate Implementation Action list

VTA Action Item Summary

A. Bicycle and Pedestrian Actions

- A-2 Bike Lockers, Racks, and Facilities at Transit Centers
- A-3 Improve Roadside Bicycle Facilities
- A-4 Improve Pedestrian Facilities

B. Public Transit

- B-3 Shuttle Service (Existing Employment Centers)
- B-8 Bus Stop Improvements

C. Carpooling, Bus Pooling, Van Pooling, Taxi Pooling

(All actions on deferred list.)

D High Occupancy Vehicle (HOV) Facilities

(All actions on deferred list.)

E. Transportation Demand Management (TDM) Programs

- E-2 Public Information Programs

F. Traffic Flow Improvements

- F-2 Peak-Hour Parking and Delivery Restrictions
- F-3 Traffic Signal Timing and Synchronization Program
- F-4 Traffic Flow Improvements in Urban Areas

G Site Design Guidelines for New Development

- G-1 HOV Parking Preference Program
- G-2 Bike Facilities at Development Projects
- G-3 Building Orientation Placement at Employment Sites
- G-4 Pedestrian Circulation System
- G-5 Bike Storage at Residential Development Projects
- G-6 Shuttle Service (New Development)
- G-7 Transit Stop Improvements
- G-8 Multi-Tenant Complex TDM Program

H Land-Use Program

(All actions on deferred list.)

A. BICYCLE AND PEDESTRIAN ACTIONS

A-2: Bicycle Storage Facilities at Transit Centers -- IMMEDIATE ACTION

Description: This action consists of adding bicycle storage facilities at designated transit centers including:

- ❖ Park-and-ride lots
- ❖ Rail transit stations
- ❖ Major transit transfer stations

The SCCTD will work with Member Agencies in designating transit centers appropriate for adding bicycle storage facilities within the Deficiency Plan area. In some cases, bicycle storage facilities might more appropriately be added at existing transit stations outside the deficiency plan area to better achieve the deficiency plan goals. For example: if the deficiency plan area contained all employment centers with few transit centers, it would be appropriate to include storage facilities at transit centers in existing residential areas, where workers live, as part of the deficiency plan.

Bicycle storage facilities shall include bicycle lockers, bike racks, and equipment storage lockers for bicyclists.

Intent: To facilitate the use of bicycles for commute and other trips.

Standards¹:

1. A minimum of 10 bicycle lockers shall be provided at all designated transit centers within the deficiency plan area, and at identified transit centers outside the deficiency plan area.
2. Secure and protected bicycle racks shall be provided at transit centers where necessary and feasible. Bicycle racks shall allow use of U-type locks.
3. Storage lockers for bicyclists shall be provided at transit centers when possible.

Timing: The deficiency plan must include a list of all transit centers that will be improved as part of the deficiency plan and an implementation plan (including funding sources and schedule) for installing the bike storage facilities.

Approval Criteria: The CMA will require that these actions be implemented at all appropriate transit centers as quickly as possible. The plan should include installing equipment at all transit centers in the deficiency plan within 1-to-2 years.

¹ The CMA will work with the SCCTD, other Member Agencies, and representatives of bicycle advocacy organizations to develop common equipment standards for bike lockers, racks and storage lockers. In the interim, Member Agencies are urged to work with SCCTD, Caltrans, and local bicycle advocacy groups to obtain appropriate equipment for bike facilities.

A-3: Improved Roadside Bicycle Facilities-- IMMEDIATE ACTION

Description: This action consists of improving roadside bicycle facilities throughout the deficiency plan area as well as connections to bicycle routes outside the deficiency plan area.

Intent: To facilitate the use of bicycles for all types of trips. **Standards:**

1. The deficiency plan must include a Bicycle Facilities Improvement Element. This element must include all bicycle improvements on an official city (or county) bicycle plan within the deficiency plan area including:
 - ❖ Widening roadway shoulders for bicycle facilities (or adding bicycle lanes);
 - ❖ Installing and marking bike detection loops at traffic signals; and
 - ❖ Implementing the city's bicycle circulation plan.
2. The initial deficiency plan must include a schedule for constructing all bicycle facilities in the Bicycle Facilities Improvement Element. If there is no official bike plan for the deficiency plan area, a Bicycle Facility Improvement Element for the deficiency plan area must be developed as part of the initial deficiency plan.
3. All cities must develop an implementation program for their Citywide Bicycle Circulation Plan. (Cities that do not have a Citywide Bicycle Circulation Plan must develop a Citywide Bicycle Circulation Plan.²)

Timing: The Deficiency Plan must include a bicycle facilities improvement element. This element must:

- ❖ List all locations where facilities will be improved;
- ❖ Outline the type of improvements that will be implemented; and
- ❖ Present an implementation plan that describes the funding sources and the schedule for the improvements.

Approval Criteria: The CMA will require that Member Agencies implement a program to strongly encourage bicycle use. Therefore, the Member Agency should include an aggressive implementation program for bicycle facility improvements.

For cities without Citywide Bicycle Circulation plans, the CMA will also require that these plans be completed within one year of deficiency plan approval.

² Note that all cities must have Citywide Bicycle Circulation Plan to receive funds from the State's Transit Development Act (TDA).

A-4: Improve Pedestrian Circulation -- IMMEDIATE ACTION

Description: This action consists of improving public sidewalks and pathways within existing commercial, employment and mixed-use centers located in the Deficiency Plan area. Improvements may include: constructing new sidewalks and pathways, providing lighting, improving landscaping, and adding signage.

Intent: To encourage walking between neighboring land uses and to support the use of alternative transportation by providing an integrated and functional pedestrian circulation system in major commercial, employment and mixed use centers.

Standards:

1. The deficiency plan must include a Pedestrian Facility Improvement Element for existing commercial, employment and mixed use centers in the Deficiency Plan area. The element may include:
 - ❖ Constructing new sidewalks between adjoining uses;
 - ❖ Constructing new sidewalks to transit stops in existing industrial areas;
 - ❖ Providing lighting for existing sidewalks and paths,
 - ❖ Improving landscaping;
 - ❖ Adding pedestrian phases/actuation for traffic signals;
 - ❖ Adding signage.
2. This Pedestrian Facility Improvement Element must include an implementation plan describing how and when the improvements will be made.

Timing: The Deficiency Plan must include a pedestrian facility improvement element. This element must:

- ❖ List all locations where facilities will be improved;
- ❖ Outline the type of improvements that will be implemented; and
- ❖ Present an implementation plan that describes the funding sources and the schedule for the improvements.

Approval Criteria: The CMA will require that pedestrian facilities in all existing activity centers within the deficiency plan area be upgraded.

The pedestrian circulation improvements in the Deficiency Plan's Pedestrian Facility Improvement Element should include as many improvements as possible and must be implemented consistent with the implementation plan.

B. TRANSIT

B-3: Shuttle Service to. Rail Transit Stations -- IMMEDIATE ACTION

Description: This action consists of providing shuttle transit service to rail transit stations and other locations or assisting in the financing of existing shuttle services.

Intent: To encourage transit use.

Standards:

1. The city must perform an initial rail station shuttle feasibility study as part of the deficiency plan. This study must include:
 - ❖ A list of all major employment centers in the deficiency plan area (defined as having over 750 employees or 300,000 gross square feet of building area) located over 2,500 feet from a rail transit station.
 - ❖ A description of all existing public or private shuttle services in the deficiency plan area.
 - ❖ A basic analysis for implementing new shuttle services from a rail station to each employment center. In the initial deficiency plan this analysis may be a relatively simple analysis evaluating the cost of providing shuttle service to each employment center, identifying the shuttle route, identifying the distance from the rail station to the employment center, identifying opportunities for serving multiple employment centers with the same shuttle route (including those with less than 750 employees), and estimating the number of potential shuttle passengers along the route. This basic analysis must also consider the feasibility of extending any existing shuttle services in the area to the employment center.
2. The city must develop a prioritized list of potential shuttle routes based upon the initial feasibility study. During the first year, the city must complete a more detailed feasibility study on the three highest priority shuttle routes. The feasibility study shall examine potential strategies for implementing and sustaining the operation of shuttle services. This feasibility study should include an implementation plan for any routes that are found to be cost effective. This detailed feasibility study must be submitted to the CMA with the city's monitoring report.
3. In future years, the city must perform detailed feasibility studies on the other routes identified on the priority list. These studies must be included in future monitoring reports.
4. The city must encourage implementation of the shuttle services found to be most effective in the feasibility study.

Timing: The Member Agency must include the initial rail station shuttle feasibility study as part the of list of employment centers and the feasibility study the original deficiency plan.

The city must include the more detailed shuttle feasibility studies in the future year deficiency plan monitoring reports.

The city must make a clear effort to develop innovative schemes to implement private shuttle service from existing employment centers during the next several years.

Approval Criteria: The CMA will require that cities include the list and initial feasibility study with their original deficiency plan. The city must include the more detailed shuttle feasibility studies, as well

as a brief report documenting its progress at implementing and sustaining shuttle service in the future year deficiency plan monitoring reports.

B-8: Transit Stop Improvements -- IMMEDIATE ACTION

Description: This action consists of improving transit stops to encourage transit use as well as improving adjoining roadways to improve traffic flow and/or reduce delays to transit vehicles entering the traffic flow.

Intent: To improve traffic LOS and increase the efficiency and the safety of the public transit system.

Standards:

Member Agencies must work with SCCTD to prepare a transit stop improvement element for transit stops in the deficiency plan area. This element must include the following:

1. A list of all transit stops in the deficiency plan area
2. An evaluation of each transit stop on the list in terms of its need for:
 - ❖ Relocation;
 - ❖ Elimination;
 - ❖ Traffic flow improvements (to assist the transit vehicle in entering the stream of traffic);
 - ❖ Passenger amenities including: shelter, seating, lighting, maps, schedules, pay telephone, and landscaping.
3. A program for implementing the improvements identified in the element.

Timing: The original Deficiency Plan must include the Transit Stop Improvement Element. Within one year after CMA approval of the Deficiency Plan, the Member Agency must begin implementation of the Transit Stop Improvement Element.

Approval Criteria: The CMA will require that all transit stops in the Deficiency Plan area be upgraded to include all feasible passenger amenities and traffic flow improvements. This program must be implemented according to the schedule included in the Deficiency Plan.

C. CARPOOLING, BUSPOOLING, VANPOOLING, AND TAXIPOOLING (All actions on Deferred List)

D. HIGH OCCUPANCY VEHICLE (HOV) FACILITIES (All actions on Deferred List)

E. TRANSPORTATION DEMAND MANAGEMENT (TDM) PROGRAMS

E-2: Public Information Programs - IMMEDIATE ACTION

Description: This action consists of providing public information on availability and benefits of transportation alternatives to the single occupant automobile as well as the air and water quality impacts of transportation decisions.

Intent: To encourage using alternatives to the single occupant automobile by including agencies such as municipal libraries and public schools, as well as employers, in the distribution of this type of information.

Standards:

1. The deficiency plan must include a plan for increasing the distribution of alternative transportation information developed by the SCCTD, the Commuter Network, MTC, Santa Clara Valley Non-point Source Program and the Air District—beyond employers included in the Air District's Trip Reduction Ordinance—within the county. Information could include:
 - ❖ Health effects of air pollution and traffic congestion;
 - ❖ Air pollution effects of older vehicles and poorly tuned vehicles;
 - ❖ Benefits of trip linking;
 - ❖ Benefits of compact/mixed-use development, especially near transit;
 - ❖ Educational materials designed for use in schools.
2. The Commuter Network and the Santa Clara Valley Non-point Source Program will assist their member cities in this effort.

Timing: The original deficiency plan must include a description of the Member Agency's plan for implementing this action. The Member Agency must begin implementation upon CMA approval of the Deficiency Plan.

Approval Criteria: The CMA will require that a comprehensive implementation program be developed by each Member Agency for this action. The CMA will require that this action be implemented immediately.

F. TRAFFIC FLOW IMPROVEMENTS

F-2: Peak-period Parking and Delivery Restrictions -- IMMEDIATE ACTION

Description: This action consists of restricting curbside parking and deliveries during peak periods to improve traffic flow.

Intent: To improve traffic flow thereby reducing vehicle emissions.

Standards:

1. Member Agency must evaluate the feasibility of this action on all CMP Roadway System arterials within the Deficiency Plan area (whether or not the Member Agency is responsible for operating the arterial). Member Agencies may extend this plan to non-CMP arterials within the Deficiency Plan area.
2. In locations where it is feasible to restrict curbside parking and deliveries during peak periods, the Member Agencies must evaluate whether implementing this action will improve traffic flow. For locations where traffic flow can be improved by implementation of parking and delivery restrictions (and the restrictions are feasible) the Member Agency must include an implementation plan describing how and when Se restrictions will be made.
3. Member Agency must implement feasible and effective parking restrictions.

Timing: The original Deficiency Plan must include a study of the feasibility and effectiveness of these parking and delivery restrictions. If the restrictions are found to be effective, the Deficiency Plan must also indicate when feasible projects will be implemented.

The Member Agency must implement the parking and delivery restrictions identified in the Deficiency Plan according to the schedule set forth in the Deficiency Plan.

Approval Criteria: The CMA will require that parking and delivery restrictions during the peak hour are implemented at all feasible locations where a traffic evaluation shows that they will be effective at improving traffic flow and reducing vehicle emissions.

F-3: Traffic Signal Timing and Synchronization Program -- IMMEDIATE ACTION

Description: This action consists of optimizing the timing of traffic signals to reduce vehicle delay and vehicle emissions at intersections.

Intent: To reduce vehicle idling and traffic delay at intersections.

Standards:

Member Agency must develop a program for optimizing traffic signal timing at all CMP Roadway System intersections within the Deficiency Plan area (whether or not the Member Agency is responsible for operating the traffic signal). Member Agencies may extend this plan to non-CMP arterial intersections within the Deficiency Plan area.

The program must include an implementation plan describing how and when the improvements will be made. Improvements could include: synchronizing sets of traffic signals on an arterial through an interconnection program, simply improving individual traffic signal timing, or other similar improvements.

Timing: The Deficiency Plan must include a Traffic Signal Timing Optimization Program. This program must:

- ❖ List all locations where traffic signal timing will be improved;
- ❖ Outline the type of improvements to be implemented (e.g. timing changes, interconnection projects, or synchronization); and
- ❖ Present an implementation plan that describes the funding sources and the schedule for the improvements.

Approval Criteria: The CMA will require that traffic signal timing at all traffic signals on CMP Roadway System facilities within the deficiency plan area be improved.

The Traffic Signal Timing Optimization Program must be implemented consistent with the schedule included in the Deficiency Plan.

Note: In general, traffic signals should be re-timed on a regular basis to ensure optimum operation. The deficiency plan should recognize this need and require a regular analysis of traffic signal timing in the deficiency plan area. (This analysis could be done by the city traffic engineering staff in conjunction with the annual CMP Traffic LOS Monitoring program.)

F-4: Urban Area Traffic Flow Improvements -- IMMEDIATE ACTION

Description: This action consists of making traffic flow improvements within congested urbanized areas to control traffic flows rather than to add capacity. These improvements may include items such as the following:

- ❖ Additional Turn lanes at intersections;
- ❖ HOV lanes;
- ❖ Turning two-way streets into one-way streets;
- ❖ Computerized traffic & transit control and management on arterials;
- ❖ Turn restrictions at intersections (peak period and all day);
- ❖ Designating reversible lanes to serve peak direction traffic flows.

Intent: The intent of these improvements is to improve traffic flows and reduce emissions in urbanized areas. These traffic flow improvements should be used to encourage infill development in urbanized areas.

Standards: The Member Agency must evaluate the benefit of these types of traffic flow improvements in the Deficiency Plan area.

Timing: Cities will be responsible for planning and financing these traffic flow improvements. New development projects located within the Deficiency Plan area or impacting deficient facilities may be required to help fund the improvements. The improvements should be implemented concurrent with development. Member Agencies are encouraged to evaluate the potential for these actions at improving traffic flow when they complete transportation analyses for Specific Plan areas and General Plan revisions. The original deficiency Plan must include an Urban Area Traffic Flow Improvement Plan. This plan must:

- ❖ List all locations where facilities will be improved;
- ❖ Outline the type of improvements that will be implemented; and
- ❖ Present an implementation plan that describes the funding sources and the schedule for the improvements.

Approval Criteria: The CMA will require that all feasible and desirable traffic flow improvements consistent with this action be made to the deficiency plan area's CMP Roadway System.

The original Deficiency Plan must include an implementation plan for all urban area traffic flow improvements included in the Deficiency Plan.

G. SITE DESIGN GUIDELINES for NEW DEVELOPMENT and ADDITIONS The Deficiency Plan actions included in the Site Design Guidelines category are intended to be implemented by all new development that takes place within the Member Agency's jurisdiction. Implementation will be required by Member Agencies as a condition of project approval.

Many Deficiency Plan Site Design Guideline actions are currently required by CMA Member Agencies; the intent of placing these actions within the Deficiency Plan is to ensure that these actions be applied to all new development project in Santa Clara County. Finally, it should be noted that these standards are minimums; Member Agencies may require additional actions as part of their own development regulations.

The Deficiency Plan Site Design Guideline actions apply to all new development projects with the following minimum gross square footages³:

• Office	30,000 gross square feet
• R&D	30,000 gross square feet
• Industrial	40,000 gross square feet
• Warehouse	85,000 gross square feet
• Residential	100 PM peak hour trips
• Retail Centers ⁴	50,000 gross square feet

Site Design Guideline actions will also apply to major additions to existing development. Major additions are defined as either (1) additions of at least 10,000 gross square feet which, when added to the existing building area that will bring the facility up to the square footage threshold defined above; or (2) as additions of at least 10,000 gross square feet to facilities that already meet the applicable square footage threshold.

³ Unless local occupancy standards vary significantly, these square footages for employment purposes house approximately 100 employees.

⁴ Only action items F-4, F-7, F-8, and F-2 (storage only) will apply to retail centers

G-1: Parking Preference for HOVs -- IMMEDIATE ACTION

Description: This action consists of providing preferential parking for high occupancy vehicles (HOVs) at employment and activity centers.

Intent: To encourage ridesharing.

Standards:

1. All new development projects subject to the Deficiency Plan must designate at least 10% of their parking spaces closest to the employee building entrances for exclusive use of employees who are ridesharing.
2. All new buildings subject to the Deficiency Plan must provide drop-off areas convenient to main employee building entrances in order to encourage ridesharing. Drop-off areas should have direct access to the street.

Timing: The Member Agency must begin implementing these actions in all appropriate development immediately.

These actions must be applied to all new development projects subject to the Deficiency Plan under the jurisdiction of the Member Agency within one year after CMA approval of the Deficiency Plan.

Approval Criteria: The CMA will require that these actions be implemented immediately on all projects requiring discretionary review. Consistency with this requirement must be indicated in a development project's TIA Report.

Member Agencies must also include a schedule in the original Deficiency Plan for changing its development regulations to require these actions to apply to all development projects subject to the Deficiency Plan.

G-2: Bicycle Facilities at Development Projects -- IMMEDIATE ACTION

Description: This action consists of requiring bicycle storage facilities and showers / changing areas for all new employment centers that have 100 or more employees. This action also must be implemented for additions for facilities when the total number of employees is over 100.

Intent: To facilitate the use of bicycles for commute trips.

Standards:

1. Bicycle Storage: All bicycle storage shall be secure and sheltered.

First 900 Employees	1 bike space for every 20 auto spaces
Over 900 Employees	1 bike space for every 40 auto spaces
Minimum	5 bike spaces
Retail Centers	1 bike space for every 20 auto spaces

2. Showers & Changing Rooms: Showers and changing rooms must be accessible for all employees working at the site.

100 to 150 Employees	1 shower
151-to-225 Employees	2 showers
226-to-300 Employees	3 showers, -one additional shower shall be provided for every 200 employees.

Note: This requirement is not applicable to retail centers.

Timing: The Member Agency must begin implementing these actions in all appropriate development immediately.

These actions must be applied to all new development projects subject to the Deficiency Plan under the jurisdiction of the Member Agency within one year after CMA approval of the Deficiency Plan.

Approval Criteria: The CMA will require that these actions be implemented immediately on all projects requiring discretionary review. Consistency with this requirement must be indicated in a development project's TIA Report.

Member Agencies must also include a schedule in the original Deficiency Plan for changing its development regulations to require these actions to apply to all development projects subject to the Deficiency Plan.

G-3: Building Placement on Site -- IMMEDIATE ACTION

Description: This action consists of placing new buildings on their sites in a manner designed to encourage alternative forms of transportation.

Intent: To encourage transit use, ridesharing, bicycling, and walking by placing buildings on their sites to make it convenient and attractive to use these alternatives to the automobile.

Standards:

1. All new development projects must include an analysis of the building orientation with respect to transportation as part of the project's Transportation Impact Analysis.⁵
2. All new buildings must have entrances oriented to adjoining transit stop(s) and/or sidewalks. They must also have direct pedestrian routes from the building entrance to the street or transit stop (see Action F-4).
3. All new buildings located within 2,000 feet of an existing or proposed rail transit station must be located within 150 feet of the street curb. Parking for these buildings should be limited in the area between the street and new buildings. Instead, parking should be provided at the sides and backs of new buildings. Member Agencies may modify this requirement for selected buildings in campus developments.

Timing: The Member Agency must begin implementing these actions in all appropriate development immediately.

These actions must be applied to new development projects subject to the Deficiency Plan under the jurisdiction of the Member Agency within one year after CMA approval of the Deficiency Plan.

Approval Criteria: The CMA will require that these actions be implemented immediately on all projects requiring discretionary review. Consistency with this requirement must be indicated in a development project's TIA Report.

Member Agencies must also include a schedule in the original Deficiency Plan for changing its development regulations to require these actions to apply to all development projects subject to the Deficiency Plan.

⁵ This requirement is included as Section 2.17 of the CMA's Transportation Impact Analysis Methodology (1991 CMP - Exhibit C).

G-4: Pedestrian Circulation System: New Development -- IMMEDIATE ACTION

Description: This action consists of building safe, attractive, and useful public sidewalks and pathways in all new development projects.

Intent: To encourage walking between neighboring land uses and to support the use of alternative transportation by providing an integrated and functional pedestrian circulation system.

Standards:

1. All new development projects must include a pedestrian circulation system that provides direct access from building entrances to transit stops, adjoining public sidewalks, neighboring land uses, nearby commercial areas, and to important locations within the project site.
2. All pedestrian paths and sidewalks must be designed with adequate lighting, landscaping, and signage for convenience and security. Where paths or sidewalks cross internal streets or parking lots, the pedestrian way shall be designated using special paving or other indication that it is a pedestrian way. Pedestrian paths through parking must provide adequate buffer between sidewalks and parked cars. All pedestrian paths must be fully accessible to the disabled.

Timing: The Member Agency must begin implementing these actions in all appropriate development immediately.

These actions must be applied to all new development projects subject to the Deficiency Plan under the jurisdiction of the Member Agency within one year after CMA approval of the Deficiency Plan.

Approval Criteria: The CMA will require that these actions be implemented immediately on all projects requiring discretionary review. Consistency with this requirement must be indicated in a development project's TIA Report.

Member Agencies must also include a schedule in the original Deficiency Plan for changing its development regulations to require these actions to apply to all development projects subject to the Deficiency Plan.

G-5: Bicycle Facilities at New Residential Development -- IMMEDIATE ACTION

Description: This action consists of requiring secure bicycle storage facilities at all new residential development projects that do not have private garages.

Intent: To facilitate bicycle use by occupants of new multi-family structures for all types of trips.

Standards:

1. All new residential development projects that do not provide separate garages for each unit shall provide secure and sheltered parking for bicycles. Projects must provide at least 1/2 space per dwelling unit.

Timing: The Member Agency must begin implementing this action in all appropriate development immediately.

This action must be applied to all new development projects subject to the Deficiency Plan under the jurisdiction of the Member Agency within one year after CMA approval of the Deficiency Plan.

Approval Criteria: The CMA will require that this action be implemented immediately on all projects requiring discretionary review. Consistency with this requirement must be indicated in a development project's TIA Report.

Member Agencies must also include a schedule in the original Deficiency Plan for changing its development regulations to require this action to apply to all development projects subject to the Deficiency Plan.

G-6: Shuttle Service -- IMMEDIATE ACTION

Description: This action consists of providing shuttle transit service to rail transit stations and other locations.

Intent: To encourage transit use.

Standards:

1. All new employment center development projects with either a minimum of 750 employees or 300,000 gross square feet must provide shuttle service to and from a rail transit station, unless the city has performed a feasibility study and determined that this action is infeasible for a particular development project. The shuttle service operating plan must be described in the development project's Transportation Impact Analysis Report and should be reviewed with SCCTD staff. The employment center may contribute to an existing shuttle service in the area or extend an existing shuttle into the area if such a service exists.
2. New employment center development projects with a size from 100-to-750 employees may be required to contribute to existing shuttle services (if they exist) in the deficiency plan area on a pro-rata basis.
3. New employment centers located within 2,500 feet of an existing transit station may construct safe, convenient, and attractive pedestrian walkways from their site to the transit station in-lieu of providing the shuttle service. (If there is an existing pedestrian way, the Member Agency may require the project to make improvements to the facility to make it safer and more attractive.)

Timing: The Member Agency must require shuttle transit service in all appropriate development upon building occupancy.

The shuttle service must be provided until such time as it is no longer required. The CMA must approve discontinuing any shuttle service included in an approved Deficiency Plan. An acceptable reason for discontinuing shuttle service is that a transit station is constructed within 2,500 feet of the development project.

Approval Criteria: The CMA will require that these actions be implemented immediately on all projects requiring discretionary review. Consistency with this requirement must be indicated in a development project's TIA Report.

Member Agencies must also include a schedule in the original Deficiency Plan for changing its development regulations to require these actions to apply to all development projects subject to the Deficiency Plan.

G-7: Transit Stop Improvements -- IMMEDIATE ACTION

Description: This action consists of improving transit stops to encourage transit use as well as improving adjoining roadways to improve traffic flow and/or reduce delays to transit vehicle entering the traffic flow.

Intent: To improve traffic LOS and increase the efficiency and the safety of the public transit system.

Standards:

1. Member Agencies must work with SCCTD to require new development projects to assist in provision of roadway improvements (including bus turnouts and bus bulbs) at bus stops affected by the development project. (Bus-bulbs are extensions of the sidewalk into the traffic lane; bus bulbs reduce the difficulty buses have in re-entering the stream of traffic thereby reducing delays to transit passengers.)
2. Member Agencies must work with the SCCTD to require new development projects to assist in provision of transit station amenities (such as shelters, signs, maps, schedules, public telephones, and lighting) at transit stops affected by the development project.

Timing: The Member Agency must begin implementing these actions in all appropriate development immediately.

These actions must be applied to all new development projects subject to the Deficiency Plan under the jurisdiction of the Member Agency within one year after CMA approval of the Deficiency Plan.

Approval Criteria: The CMA will require that these actions be implemented immediately on all projects requiring discretionary review. Consistency with this requirement must be indicated in a development project's TIA Report.

Member Agencies must also include a schedule in the original Deficiency Plan for changing its development regulations to require these actions to apply to all development projects subject to the Deficiency Plan.

G-8: Multi-tenant Complex TDM Program -- IMMEDIATE ACTION

Description: This action consists of requiring all businesses in new employment complexes with over 500 employees to participate in the Commuter Network's Transportation Demand Management (TDM) program (even those businesses not currently covered by the Air District's Trip Reduction Rule or Commuter Network TDM ordinance).

Intent: To encourage using alternatives to the single occupant automobile for travel to and from work.

Standards:

1. Member Agencies must ensure that all new multi-employer complexes with over 500 total employees in the deficiency plan area participate in the TDM program.
2. The Commuter Network will assist its member cities in the planning and implementation of this action.

Timing: The Member Agency must begin implementing these actions in all appropriate development immediately.

These actions must be applied to all, new development projects subject to the Deficiency Plan under the jurisdiction of the Member Agency within one year after CMA approval of the Deficiency Plan.

Approval Criteria: The CMA will require that these actions be implemented immediately on all projects requiring discretionary review. Consistency with this requirement must be indicated in a development project's TIA Report.

Member Agencies must also include a schedule in the original Deficiency Plan for changing its development regulations to require these actions to apply to all development projects subject to the Deficiency Plan.

C. CARPOOLING, BUS POOLING, VARPOOLING, AND TAXIPOOLING

C-1: Enhanced Trip Reduction Program -- DEFERRED ACTION

Description: This action consists of implementing an enhanced trip reduction program.

Intent: To improve the effectiveness of the trip reduction programs required under the Air Quality Management District's Trip Reduction Rule.

Standards:

Member Agencies should work with CMA staff to develop an enhanced trip reduction program for the deficiency plan area. Implementation of this program should be coordinated with the Air District's Trip Reduction Rule.

Timing: The original deficiency plan must include a program for developing an enhanced trip reduction program for the deficiency plan area.

Approval Criteria: The CMA will require that all feasible enhancements be made to the deficiency plan area's trip reduction program. This program must be implemented according to the schedule included in the Deficiency Plan. This schedule should be coordinated with implementation of the Air District's Trip Reduction Rule.

D. HIGH OCCUPANCY VEHICLE (HOV) FACILITIES

D-1: Arterial HOV/Transit Lanes -- DEFERRED ACTION

D-2: Implement MTC 2005 HOV Plan -- DEFERRED ACTION

D-3: Construct HOV Support Facilities -- DEFERRED ACTION

D-4: Construct HOV to HOV Connections and Ramps - DEFERRED ACTION

D-5: Construct HOV Bypass Facilities -- DEFERRED ACTION

Description: These actions are major capital improvements for the regional HOV system.

Intent: These actions are intended to encourage the use of transit and ridesharing.

Standards: To be developed.

Timing: Deferred Action -- Sub-regional Deficiency Plan Element.

Approval Criteria: To be developed.

Reason for Deferral: Most of these actions consist of implementation of major transportation improvements. The CMA, working with Member Agencies must develop a comprehensive program for implementing individual actions in a coordinated and equitable fashion.

G. NEW DEVELOPMENT SITE DESIGN GUIDELINES

All New Development Site Design Guidelines Actions are on the immediate implementation list. .

H. LAND USE ACTIONS -- DEFERRED ACTIONS -- (See Note)

The following actions all address land use planning and for purposes of Deficiency Plans are categorized as deferred. The CMA is developing a land-use planning study that will discuss specific implementation techniques for these actions. Until these techniques are approved, the CMA recommends that these actions be implemented by Member Agencies when they revise their General Plan or develop an areawide plan using commonly accepted transportation planning practice.

H-1: Mixed Use Development

H-2: Childcare Facilities near Transit & Employment Centers

H-3: Development of Affordable Housing Near Worksites

H-4: High Density Housing near Rail Transit

H-5: Establish Telecommuting Centers

H-6: Auto Free / Transit Only Zone

Description: These actions are land use measures designed to increase transit ridership, reduce vehicle miles travelled, improve overall air quality, and improve traffic LOS on the overall CMP roadway system. Where feasible and consistent with other community goals the Member Agency will implement these actions.

Intent: The intent of these actions is to improve overall CMP System transportation conditions.

Standards: Specific standards will be developed as part of the CMA's Land Use Element.

Timing: Deferred Action.

Note: These actions should be implemented by Member Agencies when they revise their General Plan or develop a Specific Plan. Member Agencies should use commonly accepted transportation and land-use planning practice in these situations.

Approval Criteria: To be developed.

Reason for Deferral: The CMA, working with Member Agencies, must develop specific implementation standards for land use actions.